P.79

G.M - 1913

079.13

Sl.258.368

"Cultivation of Sisal Hemp in the Mysore State

E. C.
Previous references.

191 4-15.
(G.M.)

File No. ~~G.M.~~ 67-13

Serial Nos. ~~19~~ 253

Later references.

DK 169-1886 1, 2 & 3

Preserve

MYSORE ECONOMIC CONFERENCE.

Industries and Banks

SUBJECT.

Cultivation of Dried Herbs in the Mysore State.

WD 2202—GPB—2,000—17-3-17

G.R.S. 11] 1914-15

GENERAL AND REVENUE SECRETARIAT.

( )

NOTES.

G. 2m File No. 674

FILE HEADING.

Industries and Commerce

From Secretary Economic Conference
~~The Director of Industries~~

No. ~~7884~~ Dated 13 8 15 Received 15 5 15.

Diary No. 7887 Enclos. 4 Spare Copies. Serial No.

BRIEF ABSTRACT OF LETTER.

Submits for Govt a recommendation of the Industries & Commerce Committee regarding the grant of certain concessions to any Company that may be started for the cultivation of Sisal Hemp.

NOTES AND ORDERS.

It is stated that the subject was considered by the Standing Committee of the Conference at its meeting held on the 14th April last and their recommendation is enclosed.

SM bus
4/5/14

NOTES—First Sheet.

GPB—35,000—15-6-12

Serial No.

(2) Draft as per Standing Committee's recommendation being put up to facilitate the Consideration of the Case.

Asst
6/5
1

(3) A Sft is put up as directed

DL
19.5.14.

DL
Ry up
SDM 21/5

Secy 21/5

(4) Please note after Reference to Companies Regn & other enactment whether sanction of Govt & other authority is needed to allow company to provide for payment of interest during construction out of capital &c.

CSB
21/5/14
OP

Genl 438-13.

(5) Submitted. In the present Companies Regs corresponding to the old Indian companies' Act, there is no express prohibition against payment of interest out of capital. Such matters however seem to require being specially provided for in the Articles of Association which each company had to draw up and

NOTE—Contn. sheet.

Serial No.

adopt for itself.

(6) In the new Indian Companies Act, 1913 however payment of interest out of capital is ~~provided~~ governed by Sec: 107. This Act has not been introduced into Mysore yet.

(48)
22/7/14 Rtl.
for V).

Rtl
24/7.

7) Subd for orders

SR has 25-7. 8) Even on the analogy of the latest piece of legislation in British India, the proposal to pay interest out of Capital, in the present case may be justified. The rate of interest i.e 5 ~~%~~ per Cent is higher than the rate of 4 per Cent mentioned in that Act. But the rate is not prohibited by our laws.

9) Draft Sanct? is in the file. The Finance Branch has to be consulted.
Sec?
Ctt
Hon
30/7.

10) Brtt for opinion - The file may be treated as urgent

Hon. Sec.
4/8.
'14.

CDS
1/8/14

11) Subd
Obd
SR 1/8/14
Brought down from the file

NOTE—Contn. sheet.

GPB—60,000—7-11-13

154

a comparatively short life time - This is very important financially for it means that besides the usual profits the concern must pay back the heavy initial outlay within the period of its existence -'

(15)

(16) In the Monthly Bulletin of Agricultural Intelligence & Plant Diseases (published by the International Institute of Agriculture, Rome) for March 1913 (pp 398 et seq) it is stated that in German East Africa Sisal plantations, 'as a rule cropping goes on from 5 to 7 years; a plantation lasts about 10 years; this holds true for medium soils; in the rich virgin soils the crop begins earlier; thus the first cut may be made 18 months after planting, but the plant may be exhausted after three years. In very poor soils, the first crop is secured only 4 or 5 years after planting, but the plants live much longer".

(17) These conditions will modify Mr Chatterton's estimates very considerably.

GPR—10,000 - 13-6-14

as planting operations will have to be carried on year after year in order to keep up a certain definite cropping area.

18) The life history of the plant in the climatological conditions of the Mysore Plateau has yet to be fully ascertained, but assuming that the plant begins to yield in the 6th year & continues to yield up to the 12th year, we shall have to plant out 1/6 of the area wanted to keep the machines fully employed every year. This means that planting & cultivating expenses will have to be met every year say for 200 acres, ~~is~~ which will be ~~about~~ 14,000 Rs at 70 Rs per acre. The total available area should also be ~~Even then~~ more than 2000 acres if a steady crop in 1000 acres is wanted.

19) Even then Mr Chatterton's estimate will leave a large profit, if his other figures are correct.

20) Before first pass orders Mr Chatterton may be asked to go over the estimates from this point of view & submit a revised report.

2nd member)

C&R
12/8/14

GPB—60,000—7-11-13

Serial No.

26) Besides Messrs: Kirwan and Ellis plantation there is another large concern near Erode which I was requested by the owners to inspect and report on as they desire to sell. I deferred these notes in the hope of being able to carefully go over both this and Mr. Kirwan's Estate but being single-handed my time is more than fully taken up by heavy routine work to the detriment of the more important economic work.

27) The above mentioned plantations suffer from several defects, i.e.,

(i) they are not pure sisal but are also made up of the Agaves and Fourcroyas (Mauritius Hemp).

(ii) they have both aparently been affected by weeds and jungle and consequent fires.

(iii) the machinery is not up-to-date in the one and, ~~one~~ for want of further funds, is absent altogether in the other.

28) Pure Sisal planting--proper cultivation--, and efficient machinery are therefore essentials.

29) My figure of Rs.50/- per acre was solely for putting out the plants. I also gave Mr. Chatterton figures for other items but as the proof of his pamphlet was not sent to me as arranged, I had no opportunity to make the matter clear.

30) In place of a fence a trench with 2 or 3 lines of a spiny Agave is generally adopted but I think

NOTE—Contn. sheet.

G2B—10,000—13-6-14

available in India but from limited experiments in other (to
parts of the world and from general observations the following principle is pretty well established: That bulbils derived from plants which have never been cropped (but - have only been grown for poling) will again pole soon, i.e., will not give many years cutting before they have - to be replaced. Whereas bulbils obtained from plants -- which have been cropping for years will in their turn produce plants that will yield leaves for a great number of years before they pole.

36) All our plants are of the former type ~~which~~ and it will take many years to obtain bulbils for successive planting of the latter type.

37) Therefore it would be a serious mistake to consider that the plantation would go on for ever after the anticipated high level of yield in the 11th year is reached; on the contrary we should, to be on the safe side, take - the 12th year as the limit of productiveness of the original planting, and make timely provisions for annual successions.

38) My conception of a workable plantation would be:

Extent 1800 acres-

of this 1200 would be planted at the outset

and 600 acres at 100 acres per annum from the 6th to the 12th year.

From the 12th year the original 1200 acres would begin poling and the annual replanting at the rate of 100 acres would continue, not on new ground but to replace the plants that have poled.

39) There would thus be a regular fully yielding area equivalent to 1200 acres from the time the plantation -- starts yielding.

Yield:- Taking all available facts and figures into consideration, I calculated that 3 acres will be required --

to give

to give a ton of fibre and this is the figure which, if I recollect right, I gave to Mr.Chatterton and which I still think reasonable. At this basis the regular -- annual yield would be 400 tons.

40) This requires the machine (at 2 tons per diem) to work 200 days per annum which is quite enough as -- during the monsoon all hands will be required for cultivation. I agree with Mr.Chatterton that the land should be given free, this is, on all counts, only fair.

41) On the above data the financial results given in Mr.Chakravarthi's form would be as under:-

For the first 5 years:-

Land 1800 acres	
Initial planting of 1200 acres at Rs.100/-per acre including plants and fencing	1,20,000
Cultivation for 5 years at Rs.8/- per acre per annum	40000
Supervision and unforeseen charges	15000
Interest paid for capital	25000
	200,000
Machinery and Buildings	100,000
	300,000

The sixth and subsequent years:-

Annual outturn from 1200 acres =400 tons.	
400 tons at £25/- per ton=£10,000	150,000
Deduct:-	
(a)Preparing and marketing the fibre at £200/-per ton	80,000
(b)Planting 100 acres at Rs.80/- per annum	8,000
(c)Cultivating 1800 acres at Rs.6/- per annum	10,800

P.S. G.M. 57-13

B.F. Rs.	98,800
Supervision	6,000
Depreciation	9,200
	114,000

Profit Rs.36,000 or 12%

N o t e:-

(a) Having allowed full value (£25)from the fibre this item is increased to cover the cost of marketting.

(b) & (c) These items are less than in the first 5 years work because of an area requiring cultivation will be much reduced as the plants grow and bulbils will become available on the plantation.

Agr. Chemist
26.11.14.

42) Please consult Dr Coleman etc.

CSJ
28/11/14

687
Ind 55-14

43) Forwarded for officially to the Director of Agriculture for favour of remarks & note.

By order.
Assam & Chendrakona
28/11.
for Secy to Govt

368 Do letter No 1032 dated 19th Oct 1914 from the Director of Agr & I in Mysore ——
Submits two letters of his dated over
7th Feb 1914 & 19th Oct 1914 regarding
the cultivation of

Serial No.

(44) As far as I can see, Mr. Chatterton's estimates are based almost entirely upon information obtained by him during his visit to the estate of Messrs. Kirwan and Elsee and upon information subsequently furnished by Mrs. Elsee herself. I may say that I also saw this estate some two weeks after Mr. Chatterton's visit and I should hardly speak of it as being in a "very flourishing condition."

(45) Both Mr. Chakravarti and Mr. Krumbiegel have pointed out certain weaknesses in Mr. Chatterton's estimates and their criticism is undoubtedly well founded. Mr. Krumbiegel's estimate, I think, also errs on the side of optimism. He fixes the probable life of the sisal hemp plants at 12 years. I found some of the plants on the Kirwan-Elsee estate poling when I visited it in March 1914, that is about seven years after planting.

(46) I think also that the question of supervision has not

NOTE—Contn. sheet.

GPB—10,000—13-6-14

. R. S. 12]

General and Revenue Secretariat.

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received proper consideration. Undoubtedly an estate of from 1,200 to 1800 acres would require a very capable manager both at the beginn and later on. Mr. Elsee is a most efficient and hard working planter and to that fact as to nothing else is due the fact that his estate is now in as good a condition as it is. Even at that I doubt if it will prov a financial success.

47) The ~~actu~~ facts appear to be as follows. Sisal hemp has proved a distinct financial success in only three regions in the world viz Yucatan, the Bahamas and German East Africa. In other regions it has either been a failure or the results of experiments have not been such as to attract capital to any appreciable extent. Practically all writers are agreed that the presence of a considerable quantity of lime in the soil is essential In Yucatan and in the Bahamas the principal regions of sisal

NOTE—Contn. sheet.

GII—65,000—17-C-12.

G. R. S. 12]

General and Revenue Secretariat.

G.M., File No. 67 of 191

Serial No.

present possess I consider that financial estimates are practically useless and that it would be unwise for Government to encourage the formation at of a large company in the way suggested by Mr. Chatterton

Leslie C Rennie
Dir of Agr-

17.12.14

Rec'd 18/12
Rec'd 19/12/14

49

Subd for Orders. Mr Chatterton's D.O. letter of the 19th Oct last enclosing two official Comm'ns on the subject of sisal hemp cultivation [addressed to the Secretary but not actually despatched at the time] has since been placed in the file.

P.R.2

DN W
21.12.14

50

According to Mr Kmumbiegel's revised estimate ~~Show that~~ ~~Mr contributes~~ a profit of 12 % will be earned under the worst conditions. Dr Coleman however considers even the revised estimates as unduly optimistic and says that without more

NOTE—Contn. sheet.

GPB—60,000—7-11-13

Serial No.

exact information after the life of the plant in Mysore, the period of its cropping & the quantity of the Crop is available, Govt should not encourage the formation of a Company as proposed by Dr Chatterton.

51) Further, he says that for Sisal plantations to thrive, the soil should contain a large percentage of lime, and that as the few limy tracts are already under cultivation, suitable land for sisal cultivation is not so easy to get as Dr Chatterton suggests. Submitted for orders with reference to paras 20 & 21.

21.

Sec 4/

Bro
Regrs

5- May await the return of Sec 4 E & A.

Dmg
Asst. 6/1
6/1

53 The papers may be sent to Dr Chatterton for further remarks in the light of Dr Krumbiegel's & Dr Coleman's views.

CSK
14/1/15

52 Unofficially forwarded to the Director of Industries & Commerce for favour of his further remarks.

By order.

Asst Secretary

15/1/15 E & A Dept.

E Vit
a.o. 55-14

NOTE—Contn. sheet.

GPB—60,000—7-11-13

The criticisms contained in this file on my proposals to establish a Sisal Hemp Plantation are very much a case of the blind trying to lead the blind. No one of my critics has any practical knowledge of sisal hemp planting and I am not prepared to admit that his opinion should carry any greater weight than mine. It is quite true as Dr. Coleman surmises that my estimates are based almost entirely upon information obtained during my visit to the estate of Messrs Kirwan and Elsee. I have described the plantation as being in a very flourishing condition. Dr. Coleman objects to this without stating his own opinion on the point. The estimate of the cost of cultivation and working expenses are based upon the figures furnished to me by Mr. Elsee and I am not inclined to accept modifications of them by people who have actually no experience of the work. There are three points emerging from the critics' remarks which it appears to me requires to be dealt with:

Mr. Balasundaram Iyer points out that to keep the estate up to a certain area one-sixth of it will have to be replanted every year and he estimates that this will cost an extra Rs.70/- per acre. I have put down the working expenses of the estate at Rs. 92,500 per annum on a basis of 1,000 acres being under condition to yield fibre at the rate of half a ton per acre per annum. These working expenses are based upon figures given me by Messrs. Kirwan and Elsee for a very small area vide page 2 of the pamphlet. I am quite certain that they are excessive for a large estate and that they leave a sufficient margin to keep the estate in a condition to yield 500 tons of fibre per annum. I am quite prepared, however, to accept

(19)

accept the additional charge imposed by Mr. Balasundaram Iyer's suggestion, because, as he points out, although it reduces the profit, the yield will still be a highly satisfactory one.

(5) The only point in the remarks of the Superintendent of the Botanical Gardens which is worth considering is his suggestion about the parentage of the young plant. He states that bulbils derived from plants which have never been cropped will again pole soon, whereas bulbils obtained from plants which have been cropped for years will in their turn produce plants that will yield leaves for a great number of years before they pole. If this be the case, it will probably not be difficult to get suitable bulbils from German East Africa where, I presume, this point has received attention. It will aid somewhat to the initial cost of starting the plantation.

(5) The third point is one to which Dr. Coleman draws attention that is the necessity for lime in the soil. If a plantation is established, this point can be investigated by making a suitable number of soil analyses. I should certainly not advise taking up lands which do not contain a suitable proportion of lime in the soil. I do not pretend to be an agricultural expert and my opinion as to the possibilities of sisal hemp is based upon the fact that various kinds of Agaves grow luxuriantly in the State, that they have done well at Fraserpet and that there are numerous scattered examples of sisal hemp which lead one to suppose that if they do well when grown in a haphazard way, they are likely to do better when grown on a plantation, provided the site and soil is

suitable

20

suitable. It may well be that I have taken too sanguine a view of the profits to be derived from sisal hemp cultivation and that I have not allowed enough for the inefficiency of the administration. It must be remembered that the cost of doing work of this character depends largely on the skill and experience of the men in charge of it. One planter makes money whilst another fails utterly. I have assumed possibly too high a standard of efficiency and it is easy for experts with no actual knowledge or experience of sisal hemp plantation work to state that these figures are wrong and to give what they consider to be their own figures. I am therefore not inclined to attach too much weight to these opinions. Given a suitable soil, I still remain convinced that a sisal hemp plantation in Mauritius will pay. The essential conditions to success may be summed up as follows:

(1) That the soil should be suitable, that is to say that it should be of a calcareous nature.

(2) That the rain-fall should be sufficient, that is to say, over 30 inches per annum.

(3) That the area should be sufficiently large to yield a crop capable of giving employment to at least one set of the best modern fibre-extracting machinery.

(4) That the plantation should be started with bulbils of a variety that will only pole at long intervals.

(5) That replanting should go on so as to obtain from a yield of the estate at a fairly uniform yield.

19.1.1915

Byron Chatterton

515

(21)

F. R. S. 12]

General and Revenue Secretariat. | G. R. File No. 67 of 1913-14

Serial No.

Subd for orders.

SN
21/1/15

It seems to me that all things considered the Sisal hemp plantation is likely to be a profitable business if properly undertaken. There is no doubt an element of risk & uncertainty, but it is a risk which enterprise should be ready to take. The war has perhaps upset the supply of fibre from ~~Sisal~~ East Africa & in future there will be room for a supply from other parts of the world. Govt may perhaps place the facts before the public & offer certain concessions — free grant of land on certain conditions subscription of a small part of the capital — if a ~~local~~ company with half its capital raised locally will come forward to take up the business.

CSX
15/1/15

2nd member

In my opinion the indus is not one that is likely to appeal to the public, in its present condition. I can

NOTE—Contn. sheet.

GPB—25,000—2-11-14

Serial No.

not sure if it is right for Govt to put capital into public company scheme that has yet to prove its success financially. At all events, the subject is one that can be taken up immediately for exploitation the machinery is to come from Germany & even the plants may have to be imported from German East-Africa. Return is possible under the present circumstances. The subject may lie over for the present.

17/7

Inform Director of Agriculture &c to this effect &c.

17/7/15

GPB—25,000—2-11-14

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14-15

9.

57 13

D. O. 632 Eco.

GOVERNMENT OF MYSORE

Office of the
Director of Industries and Commerce,
"Ringwood" High Ground,

Bangalore 19th Oct. 1914.

Dear Mr. Balasundram Iyer,

I enclose two official letters regarding sisal hemp. The first was dated the 7th February 1914, and should have been despatched to Government then. Instead of the office sending it, it was put backin a file and it remained there till to day when I addressed the second letter to you enclosing a copy of a report from Messrs Hindley & Co. I have, of course, been under the impression that you had this letter eight months ago, and that there was some delay in passing orders on it,

Yours sincerely,

Bryce Chatterton

C. S. Balasundram Iyer Esq.

No.

Encl.

OFFICE OF THE
DIRECTOR OF INDUSTRIES AND COMMERCE.
"RINGWOOD," HIGH GROUND,

Bangalore, 19th October 191 .

FROM

ALFRED CHATTERTON, ESQ., F. C. G. I., C. I. E.,
Director of Industries and Commerce in Mysore,
Bangalore. (India).

TO

The Secretary to the Government of H.H. the Maharajah of
Mysore for Education &Agriculture, Bangalore.

SIR,

In continuation of my No. dated the 7th Febry, I have the honour to forward for the information of Government a copy of a report I have received from Messrs Hindley & Co. regarding the value of samples of sisal hemp grown in the Mysore State which were cleaned for me by Mr. Krumbiegal. These samples were, I think, grown in the "Lal Bagh" It is, I think, desirable that early orders should be passed regarding the proposal to establish a sisal hemp plantation in this State.

I have the honour to be,

Sir,

Your most obedient servant,

Alfred Chatterton

Director.

Copy of letter from Messrs Hindley & Co. Ltd.,

London, E. C., dated the 25th September 1914.

We have to acknowledge the receipt of your favour of the 1st inst., and the sample advised therein has also come to hand. We consider the value of this sisal hemp in the present state of the market £23-10-0 to £24-10-0 per ton.

In the event of your shipping this, you would require to see that it is not done up as shewn by the sample, namely in neck strings, but it would require to be packed in large heads with a neckband, not with neck-strings on each strick.

Further it would require to be packed straight in bales.

The colour and strength are satisfactory, but the hemp could do with a more little cleaning or brushing.

We shall be pleased to hear from you as to the suppliers of this sisal or whether you yourself intend to do the shipping so that we can get together with a view to business. Also we shall be pleased to hear as to the probable out-turn of the hemp.

Awaiting your further news,

We are etc.....

"Copy".

Director of Industries and Commerce

GPB—1,000—23-7-13

Encl.

No.

OFFICE OF THE
DIRECTOR OF INDUSTRIES AND COMMERCE,
"RINGWOOD," HIGH GROUND,

Bangalore, 7th February *191* 4

FROM

ALFRED CHATTERTON, ESQ., C.I.E.,
Director of Industries and Commerce in Mysore,
Bangalore.

To

The Secretary to the Government of His Highness the Maharajah of Mysore for Education and Agriculture, Bangalore.

SIR,

I have the honour to address Government regarding the prospects of creating a large fibre industry in the Mysore State, based upon the aloe known as "Agavi Rigada, Var. Sissalana".

The idea of encouraging the cultivation of this plant is by no means a new one, and some years ago, it was energetically taken up by Mr. J. Cameron, the then Superintendent of the "Lal Bagh". It appears that, as long ago as 1892, the late Mr. Ricketts, acting on Mr. Cameron's advice, obtained 5,000 plants direct from Florida, and they were put out ina in a plot of land in the "Lal Bagh". About 10 years later, Mr. Cameron communicated a paper on the subject to the Proceedings of the Horticultural Society at Madras. I have not been able to procure a copy of this paper, but lengthy extracts from it are published in the Agricultural Ledger, No. 7 of 1906, in which he states that during the current official year 45,000 plants were sold, realising more than Rs. 1,[illegible]. He sums up the results of his observations in the following passage:—"In my opinion, the cultivation should be left to private enterprise, "though in the case of arid tracts, where ragi often fails to reward "the ryot, it may be feasible to substitute a crop of the kind. But this "could only be done when a real demand for hemp arises at convenient "centres. The advantages of the cultivation may be briefly stated as

"follows:--

(1) Land of a gravelly and stony nature is suitable.

(2) When land is planted up, the cultivation practically ceases for a period of four years, or until the matured leaves are ready for cutting.

(3) On suitable land, failure of crop has never been heard of.

(4) The profit on an acre of land yielding crop is estimated at £4 to £5 per annum, that is Rs. 60 to Rs. 75.

"The large succulent growth obtained in rich land is inimical both "to the quantity of and quality of fibre produced; therefore, some- "what poor land of a loose stony nature is always preferred, as in "addition to giving better results generally it accommodates a large "number of plants to the acre. Mysore possesses plenty of such land "and if the latter can produce leaves of four feet in length it will "do."

So far as I have been able to ascertain, there has been no practical result from these experiments. There are no Sisal hemp plantations in this State, and only in a few places has the Forest Department used this particular form of aloe for fencing plantations in. Mr. Cameron did not exaggerate the possibilities of Sisal hemp, and it is therefore necessary to find some adequate explanation for the failure to establish Sisal hemp cultivation in this State. As the result of my inquiries, the explanation which I am able to offer appears to me to be adequate, and it is due (1) to the difficulty of extracting the fibre when the plant is grown; (2) to the fact that a period of five years must elapse before any returns can be obtained from the outlay involved; (3) to extract the fibre by hand is a tedious and costly business, and one to which coolies strongly object, as the juicy pulp is of an acrid character, and produces sores on the skin. The work must be done by machinery, and though at the time Mr. Cameron wrote, there was a considerable number of machines on the market, none of them were altogether satisfactory, and most of them very expensive. In recent years, however, material improvements have been made in aloe-fibre extracting machines, but they are still very costly, and are only suitable for dealing with the crop of

on a large scale. My inquiries lead me to think that the "Corona" machine manufactured by Messrs Krupp of Germany is well adapted to the work of extracting Sisal hemp fibre, but the price of the machine is about £1,000, or Rs. 15,000; it takes 30 horse-power to drive it, and its output is about two tons of fibre per working day. There are smaller machines such as the "Tod" machine, which can be purchased for about £400, but it is not so good a machine, although its output is fully half a ton of fibre per day. The introduction of Sisal hemp as a source of fibre was therefore beyond the means of the ordinary ryot, and was apparently not sufficiently attractive to planters of capital, who preferred to put their money into estates devoted to growing products, the cultivation of which was better known. For some years past, however, I have been aware of the fact that two planters in Coorg, Messrs L. E. Kirwan, and C. Elsee, have a small estate in the neighbourhood of Fraserpett; and lately, having occasion to visit the western part of the Mysore District, I took advantage of the opportunity to inspect their plantation. It appears that these gentlemen have obtained a concession of 1,000 acres from the Coorg Government, and that in 1907 and 1908, they planted up 140 acres. In 1910, the estate not having been kept clean, fire ran through one half of it, and destroyed most of the leaves which were then coming to maturity. Inability to put capital into the estate seems to have delayed improvements till last year, when a second-hand "Tod" machine, and a portable steam engine were obtained, and the work of fibre extraction started. Up till the end of last year, 25 tons of fibre have been taken out, and sold on the London market at £28 a ton. From the figures supplied to me, it would appear that the cost of extracting the fibre was about Rs. 80 a ton, and the cost of sending it to London for sale about Rs. 75 a ton; in all Rs. 155 a ton, whereas Rs. 420 a ton was realised, leaving a balance of Rs.365 a ton. The owners of the estate expect to realise another 150 tons of fibre during the next two years, and this I think is a reasonable estimate. The expenditure up to the present time appears to have been about Rs. 36,000, and the realisations about Rs. 11,000. Assumin

Assuming that each year a ton of fibre yields a profit of Rs. 250, and that 150 tons are taken out during the next two years, a net profit of Rs. 37,500 will be realised, against a total net expenditure up to date of Rs. 25,000. Considering the difficulties under which this estate has been started, the result must be considered very satisfactory, and the owners are to be congratulated on the enterprise they have shewn. They have at least deomonstrated that when Sissal hemp is grown on a sufficiently large scale, the extraction is not a difficult matter, and the cultivation is profitable.

There are, I imagine, many thousands of acres of land in Mysore equally suitably situated, which will yield in the light of the experience of Messrs Kirwan and Elsee much better results. Since my return to Bangalore, I have consulted with Mr. Krumbiegal at the "Lal Bagh", and he agrees with me as to the conclusions which I have stated above regarding the lack of progress in the past, and the possibilities of the future. Moreover, he shewed me a small patch of Sissal planted some years ago in the "Lal Bagh" which has grown extremely well, and there is at present in the Nursery somewhere about 3 lakhs of plants ready to be put out; and further supplies could be obtained ~~could be obtained~~ in a comparatively short time without any difficulty.

I have therefore to submit to Government a proposal for the establishment of a Sissal hemp plantation on an area of land about 1,000 acres in extent. I am inclined to think that a suitable site will be obtained in the Bangalore District, probably not far from the Mysore road. The cost of establishing this plantation I estimat after consulting with Mr. Krumbiegal, at about Rs. 50 per acre. At the end of five years, a further capital outlay of about Rs. 50,000 for machinery and plant will be required, and the estate will then begin to yield leaves of sufficient size to extract the fibre. There is plenty of evidence to shew that a crop of 100 tons of fibre might be extracted at the end of the fifth year, gradually increasing in subsequent years to not less than 500 tons which might be maintained

GPB—1,000—27-11-13

MYSORE ECONOMIC CONFERENCE.

No. 1388 Encs. 4
E. C.

Dated Bangalore, 27th April 1914.

DIARY No. 7887

1913-19 14
SECTION 9
Bangalore.
FILE No. 67 & 13
256

FROM

C. S. BALASUNDARAM IYER, ESQ., B.A.,
Secretary to the Mysore Economic Conference,
Bangalore.

To

C.S. Balasundaram Iyer, Esq., B.A.
Secretary to the Government of H.H. the Maharaja
for Education and Agriculture.

SIR,

I have the honour to forward herewith for orders of Government copy of letter No. 1456 dated 6th March 1914, with its enclosures, from the Secretary, Industries and Commerce Committee forwarding the recommendations of the Industries and Commerce Committee regarding the grant of certain concessions to any company that would be formed for the cultivation of Sisal Hemp.

The subject was placed before the Standing Committee of the - - - Economic Conference at a meeting held on the 14th April 1914, and the Committee resolved that if a local company was formed with half its capital raised locally, the concessions recommended by the Industries and Commerce Committee as regards the grant of land and the subscription of 1/5th of the capital, if the remaining 4/5ths were subscribed and paid up, might be granted.

An extract from the proceedings of the Standing Committee meeting containing the resolution of the Committee is also forwarded for information.

I am to request you to be so good as to obtain the early orders

of Government in the matter.

I have the honour to be,

Sir,

Your most obedient servant,

C S Balasundaram

Secretary

C.S.

C.S.

Letter No.1456 dated, 6th March 1914, from the Secretary, - - - Industries and Commerce Committee to the Secretary, Mysore Economic Conference.

I have the honour to forward herewith, copy of an abstract of the discussion that took place at the recent meeting of the Committee on the Note on Sisal Hemp prepared by Mr. Chatterton, as well as copy of Note by Mr. J.S. Chakravarti, on the same matter. As the Committee were agreed that the note of Mr. Chatterton justified the belief that the cultivation of Sisal Hemp was profitable they resolved that the following recommendations be sent for the early orders of Government to encourage the public to start work as early as practicable:-

1. Government should make a grant of suitable land if possible in one compact block of 1,500 acres free of upset price and also free of assessment, for a period of seven years with a provision for payment of full assessment at dry rates thereafter.

2. Government should subscribe one-fifth of the paid up capital - - after the remaining four-fifths have been taken up by the public.

3. The Committee do not consider that Government should guarantee an interest of 5% per annum for ten years but the company should be permitted to raise an initial capital that would not only be adequate to start and mature a plantation over 1,000 acres of ground but also enable them to pay an interest at the rate of 5% on the paid-up capital during the period the plants were in growth and the fibre extracted.

4. The Company should be permitted to raise a lakh of rupees or whatever sum was required to equip the plantation with suitable machinery after the the growth of the plants permitted of their being worked for fibre either by way of debentures or by increase of

capital whichever was more profitable to the Company.

' Copy'

C.S.

C Balasundaram
Secretary

C.B.S.

Extract from the Proceedings of the Second meeting of the Standing Committee held on the 14th April 1914.

Letter No. 1456 dated, 8th March 1914, from the Secretary, Industries and Committee forwarding resolution 2 passed by the Committee at its meeting held on 28th February 1914, recommending the grant of certain concessions for the growth of Sisal Hemp.

It was resolved that if a local company was formed with half its capital raised locally, the concessions recommended by the Industries and Commerce Committee as regards the grant of land and the subscription of 1/5th of the Capital, if the remaining 4/5ths were subscribed and paid up, might be granted.

C.S.

C Balasundaram
Secretary

C.S.

Proceedings of the 25th Meeting of the Committee for Industries and Commerce, held on the 31st January 1914.

x x x x

3. Consideration of the Note on Sisal Hemp by Mr. Chatterton.

Mr. Chatterton said that he had collected the information, he had obtained at the Sisal hemp plantation at S o s r g together with what was available in the literature that had grown up on the subject in the bulletin that had been circulated to the members. The specimens of hemp fibre derived from the -- various species that are planted in the Lal-bagh, the Poona Forest Plantation were also exhibited at the meeting. Mr. Chakravarti remarked that the question of a plantation of Sisal Hemp was a matter that was more properly within the purview of the Agricultural Committee and that the Bulletin might accordingly be forwarded to that Committee ~~and that the Bulletin might accordingly be forwarded to that Committee~~ for opinion. Mr. Krumbiegel suggested Sisal Hemp was an industrial crop and the question of its plantation could only be taken up by a body who proposed to set up machinery to extract the fibre. Sisal Hemp was only profitable, if a plantation was started on a large scale and labour saving machinery was used to extract the fibre. It was not like a food crop that had a local market and that could be easily cultivated by Agriculturists. The

Cultivation of this hemp therefore could only be taken up by Government or by a company with a large capital behind it. As it was not proposed that Government should take up the matter Mr. Krumbiegel considered the question should be considered by this Committee. Mr. Srinivasa Iyengar suggested that it was much better to consider the question on its merits and leave it to Government to place the matter before the Standing Committee which had been specially organised to consider the subjects that fell within the purview of both the Agricultural and Industrial Committees. The Chairman agreed with this view and the consideration of the Note was taken up.

The Secretary read a statement of Accounts prepared by Mr. J.S. Chakravarti showing that the actual cost of plantation was about 2 lakhs and not one lakh as Mr. Chatterton suggested in his Note and that the outturn of fibre per acre could not be expected to be more than 5 cwts per acre seeing that the Hindupur plantation did not give more than 350 lbs per acre. Mr. Chatterton objected to this criticism on the ground that the basis he had assumed for calculations was not recognised. He assumed that Government would be prepared to grant 1,[illegible] acres free of any cost and not demand Rs. 30,000 as suggested by Mr. Chakravarti and that all plants now available in the Lal-bagh would also be given free of any charge. The results at Hindupur could not be compared as the rain fall there, 23 inches, was totally inadequate for sisal which required an annual fall between 30 to 40 inches of rain and the ground selected was extremely inferior soil chosen with a view to ascertain the possibilities of the large tracts of -- waste land in Anantapur District. He also remarked that the suggested yearly maintenance expenses of Rs. 10 per acre for keeping the estate clean was far too high a figure as a rich crop compared to -- which sisal did notrequire more attention was hardly worth more than Rs. 15 per acre and could not possibly bear a maintenance charge as high as Rs. 10. Srinivasa Iyengar remarked that it was quite possible to have differences of opinion as regards the proper cost of raising a sisal plantation but it appeared to him there was enough in Mr. Chatterton's Note to justify a belief that the scheme suggeste

was full of promise and a determined and systematic effort to put it in hand was required. Even according to Mr. Chakravarti's figures with the cost of raising up the plantation practically doubled and the outturn of fibre per acre reduced to one half of what was given by Mr. Chatterton, sisal hemp yielded a return of 6 per cent on the capital invested. He considered that the Committee might proceed to consider if the concessions suggested by Mr. Chatterton required modification. It was observed that if 1,500 acres of land in one block was required, it could only be obtained in the reserved forests. Mr. Muthannah remarked that suitable land of the extent could be made available if required from the forest land in the Hunsur Taluq. After some discussion as regards the form in which the aid of Government should be offered towards the establishment of this industry, it was resolved by a majority, Mr. Chakravarti dissenting, that Government be

Resolution 2. recommended to grant the following concessions to any company that would be formed for the growth of sisal plantation:--

(1) Government should make a grant of suitable land, if possible, in one compact block 1,500 acres free of up set price and also free of assessment for a period of 7 years with a provision of payment of full assessment at dry rates thereafter.

(2) Government should subscribe one-fifth of the paid up capital after the remaining four-fifths have been taken up by the public.

(3) The Committee did not consider that Government should guarantee an interest of 5 per cent per annum for 10 years but the company should be permitted to raise an initial capital that would not only be adequate to start and mature a plantation over 1000 acres of ground but also enable them to pay interest at the rate of 5 per cent on the paid up capital during the period the plants were in growth and no fibre was extracted.

SISAL HEMP PLANTATION SCHEME.

Land 1500 acres at Rs. 20 per acre.	30,000	(a)
Planting ...	72,000	(b)
Fencing ...	15,000	(c)
Plants ...	15,000	(d)
Keeping clean for 5 years at Rs. 10 per acre per annum ...	50,000	(e)
Unforeseen charges ...	5,000	(f)
Supervision etc., for initial operations and for 5 years.	13,000	(g)
	2,00,000	
Machinery, buildings, etc., in the 5th year	1,00,000	(h)
	3,00,000	

Outturn at 5 cwts., (i) per acre-- 250 tons @ £23 a ton (j) net.		86,250
Deduct actual cutting expenses and conversion into fibre at Rs. 175 per ton (k)	Rs.	43,750
Maintenance of plantation at Rs. 10 (l) per annum per acre including rent.	"	10,000
Maintenance and depreciation in buildings and plant (m)	"	10,000
Miscellaneous charges (n)	"	4,500
		68,250

This would leave a return of just 6 % on the capital.

Notes.

(a) As the lands are obviously to be near a railway line Rs. 20 per acre is the least price which can be taken for lands in the Malnad given for coffee plantations etc an upset price of Rs. 10 per acre is required.

(b) Messrs. Kirwan and Elsee's figures of Rs. 72 per acre for clearing and planting is taken as based on actual experience Mr. Krumbiegel's estimate of Rs. 50 per acre perhaps refers only to planting and does not include clearing. (page 11. Vide also Dr. Mann's paper quoted on page 10 in which it is stated that "A Sisal Hemp plantation will cost as much as a tea plantation in the first instance." This indicates that the initial cost will be much more than Rs. 72 per acre.

(c) Mr. Chatterton's figure is taken but it is very improbable that fifteen hundred acres of suitable land can be had in one block and the cost of fencing will perhaps be much more.

(d) The Lal-bagh nursery rate of Rs. 15 per 1000 is taken. Including cost of carriage, this rate appears reasonable.

(e) An allowance of Rs. 5 per acre per annum for maintenance for the first 5 years appears too low. Rs. 10 per acre annum has been taken as reasonable.

(f) Mr. Chatterton's figure.

(g) Mr. Chatterton does excludes administrative charges and cost of supervision as they will be undertaken by the Departments of Industries and Commerce or by the Department of Agriculture. In a commercial undertaking such charges should be included in the account. The amount included is at the rate of Rs. 2,500 a year with an extra expenditure of Rs. 500 during the first year.

(h) Mr. Chatterton's figure (page 13).

G.R.S. 28]

File No.

Serial No.

*Diary No. of letter replied to*_____

Proceedings of the Government of His Highness the Maharaja of Mysore

GENERAL AND REVENUE SECRETARIAT.

( )

, *the* 191 .

READ—

Letter No 1388 dated 27th April 1914 from the Secretary Ec. Confce submitting for orders a recommendation of the Industries and Commerce Committee regarding the grant of certain concessions to any Company that may be started for the cultivation of Sisal Hemp.

Date of issue_____

Signed by_____

ORDER THEREON. No.

SUBJECT.

GPB—50,000—1-12-12

Order thereon No 9.

The Committee have made the following recommendations with a view to encourage the a ~~public to start~~ a plantation of Sisal Hemp and introduce labour saving machinery to extract the ~~fibre~~ fibre :—

(1) Govt ~~to~~ should make a grant of suitable land, if possible in one compact block, of 1500 acres free of upset price and also free of assessment, for a period of seven years with a provision for payment of full assessment at dry rates thereafter

(2) Govt ~~to~~ should subscribe one fifth of the paid up Capital after the remaining four fifths have been taken up by the public.

G.R.S. 27]

GENERAL AND REVENUE SECRETARIAT.

(*Continuation Sheet draft form.*)

(3) The ~~Committee~~ Company should be permitted to raise an initial capital that would not only be adequate to start and mature a plantation over 10000 acres of ground but also enable them to pay interest at the rate of 5% on the paid up Capital during the period the plants were in growth and the fibre extracted.

(4) The Company should be permitted to raise a lakh of rupees or ~~such other whatever~~ sum as might be required to equip the plantation with suitable machinery after the growth of the plants permitted of their being worked for fibre either by way of debentures or by increase of capital, whichever ~~was~~ might be more profitable to the Company.

2. The Secretary states that the subject was

GPB—10,000—22-2-11

considered by the Standing Committee of the Conference at its ~~last~~ meeting held on the 14th April 1914 and that it was resolved that, if a local Company was formed with half its capital raised locally, the concessions recommended by the I & C Committee as regards the grant of land & the subscription of 1/5th of the capital, if the remaining 4/5ths were subscribed & paid up, might be granted.

3. Govt are pleased to sanction the Standing Committee's recommendation. ~~and request~~ The Secy of the E.C. is requested to submit a report to Govt, in due course, showing the action taken in the matter.

CSB/21/5/14

Secy E & R

SP

The Secretary L. Confce

Should be made in the article of association of the Company. Provision for payment of interest on capital during the period required for the growth of the plant to maturity & for raising a loan by way of debentures or by increasing the capital for installing machinery to extract the fibre. It should be made quite clear in the prospectus that beyond giving the concessions specified in this letter Govt do not in any way accept responsibility in respect of the concern.

51

G.R.S. 13]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

D570

D.O. letter No. [illegible] dated the 4th Oct. 1914 from the Dir. of Stat. & Statl. Re. Land Use & Cultivation.

The main file on the subject is not easily traceable. The last entry in the Diary is "2nd Member 17/8/14." But it appears to have undergone further stages of progress. The Manager of the Dir.'s office says that the file has not been referred to the Dir. for opinion. The estt. of the 2nd member and the Dewan's office estt. (Mr B. Venkoba Rao) say that the file is not with them. Further attempts are however being made to find out the file. This does not seem to have been recd in the Branch after 1-9-14.

Subd SN

SN 3/11/14

N.B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

GPB—50,000—29-6-14

G.R.S. 13]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

Subd personal.

~~Lambert~~

Efforts are being made to trace the file. It is a matter for regret that the ~~copies~~ further stages of the Case have not been duly registered.

My recollection is that the 2nd member approved of the Secretary's proposal to refer the file back to Mr Chatterton for a further note

Secy

Asm 3/11.

Sent to the Supdt Govt Gardens unofficially for opinion on 15/8/14 (H.O. No 22 of 14).

Reminder subd

Asm 7/11/14

Asm 7/11

N.B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

Asm AR. 29/

GPB—50,000—29-6-14

Reminder subd. for signature. Asm Todays 18/11

Asm 16/11/14

G.R.S. 13]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

Another reminder is sent for signature

28/4/14

Issue

(Regr)

(individually) 30/4.

30/4

N.B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

GPB—50,000—29-6-14

G.R.S. 44]

No.....

GENERAL AND REVENUE SECRETARIAT.

Unofficial Memorandum.

The case noted below was referred unofficially to the Supdt Govt Gardens ~~Department~~, on the date specified.

Will the Gardens Department kindly say when ~~their~~ its return may be expected, or inform the General and Revenue Secretariat what action, if any, has been taken on ~~them?~~ it?

It is requested that the General and Revenue Secretariat may be favoured with a reply to this reminder not later than the 5th Dec^{r} 1914

Dated.....
.....*190*

G.O. No 22 dated 15th Aug 1914 (G. No 67 of 13) regarding the cultivation of Sisal Hemp (subsequent reminders Nos. 1221 & 1353 dated 10th & 18th Nov^{r} 1914).

By Order

Mancinancipar

for Secy to Govt

W Ca^{r} & Agrl

GPB—4,000—16-4-06.

G.R.S. 88]

GENERAL AND REVENUE SECRETARIAT.

No 7274

List of Papers sent with File No. 67 of 13

from the [illegible] on the 15/8/ 190 .

D. No. 7557 dt. 9/8/

Subject.

1. Ganja Hemp

1) 5 books.

2) 17 Pages of Office Notes

3) [illegible]

4) 9 758) (Last Copy of Book

5) 2570 with [illegible]

for further [illegible]

G.R.S. 13]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

Fns
438 13

Yes

27887

To Branch III
for favour of a note
with refce to Secy's
Orders dated 21-5-14
on the file

27-5-14

N.B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

GPB—20,000—23-12-15

P32

THE MYSORE ECONOMIC CONFERENCE.

INDUSTRIES AND COMMERCE COMMITTEE.

BULLETIN No. 4.

STATISTICAL INFORMATION

REGARDING

THE EXTERNAL TRADE

OF THE

MYSORE STATE

DURING THE DECENNIAL PERIOD, 1901 - 11

BY

ALFRED CHATTERTON, C. I. E.,

Director of Industries and Commerce, Mysore.

BANGALORE:

PRINTED AT THE VOKKALIGARA SANGHA PRESS.

1913.

STATISTICAL INFORMATION

REGARDING

THE EXTERNAL TRADE

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1913.

STATISTICAL INFORMATION

Regarding

THE EXTERNAL TRADE OF THE MYSORE STATE

during the decennial period

1901-11.

The following review of the Trade and Commerce of the Mysore State during the past ten years is based upon information collected from the following sources: —

1. Census of India, 1911, Vol. 21, Mysore.
2. Review and returns of the rail-borne trade of the Madras Presidency, (annual).
3. Report of the rail-borne trade of the Bombay Presidency, (annual).
4. Report of the Administration of Mysore, (annual).
5. The Mysore Season and Crop Report (annual).
6. Report of the Chief Inspector of Mines, Mysore Geological Department, (annual).
7. Accounts of the trade carried by rail and river in India, (annual).
8. Annual volume of the sea-borne trade and navigation of the Madras Presidency.

The accuracy of the statistical information afforded by these publications differs greatly, and a comparison of the figures over a period of years reveals unaccountable variations, which suggest either changes in the methods of classification, or carelessness in the preparation of the returns. The most important sources of information are :—

1. The Mysore Season and Crop Reports;
2. The returns of rail-borne traffic across the Mysore frontiers;
3. The reports of the Chief Inspector of Mines.

It will be convenient first to state briefly how the information contained in these reports is compiled.

The Mysore Season and Crop Reports.

These are based upon information supplied by the "Shanbhogs", or village accountants, and are probably as accurate as any agricultural statistics published in this country. The area assigned to different crops by the Shanbhog is not the result of accurate measurement, but is more or less an estimate based upon intimate knowledge of what is going on in his village. From the Shanbhog's report the taluk statistics are compiled, and these are forwarded by the Amildars to the Deputy Commissioners, who in turn forward them to the Revenue Commissioner, in whose Office the final reports are prepared.

Returns of rail-borne traffic.

These annual reports, published by the Provincial Governments in India, are prepared from statistics furnished by the Government Examiner of railway accounts, who receives them from the Audit Departments of the Railway; and the following extract from the explanatory note attached to the Madras Report for 1910-11 will serve to indicate the value to be attached to the information supplied. "The weights entered in these tables are *net*, that is to say, a fixed average deduction is made from the actual gross weight of the goods. A statement showing the rates of deduction in the case of various descriptions of traffic is prefixed to the tables.

"The value of the goods is ascertained by assigning average values to each article when the accounts are prepared. For this purpose, Collectors furnish every quarter average values for those articles in which there is any considerable trade in their districts. The values of *coal and coke and of railway plant and rolling-stock* are reported by the Railway authorities direct, and the value of *hay, straw and grass* is worked out from the fortnightly returns of wholesale prices published by the Board. Quarterly reports of value not being practicable in the case of certain articles such as *machinery and millwork* and *other manufactures* under iron and steel, *metallic ores, mineral substances*, and *all other articles of merchandise*, fixed conventional values have been adopted in these cases. The quantity of traffic in each article for each quarter is mutiplied by the value rate for that quarter, and the sum of the products for the four quarters forms the value for the whole year. In valuing the export trade of the Presidency and the trade with the Native States, as well as in valuing the internal trade, the rates adopted are those fixed for the Presidency, while for valuing the imports, the rates fixed by the exporting provinces are adopted."

In regard to the rates assigned to the various commodities, the rates for the following are said to be reliable:—

1. Coal and coke;
2. Grain and pulses;
3. Oils;
4. Oil-seeds;
5. Ghee;
6. Railway plant and rolling-stock;
7. Salt;
8. Spices except "others";
9. Sugar;
10. Treasure.

Conventional rates are used in calculating the value of metals, iron and salt; 1 (*b*), machinery and millwork; 2 (*c*), other manufactures including hardware and cutlery; (3) metal-ores, mineral substances and other articles of merchandise.

The rates for the other items included in the returns are stated to be approximately accurate. Subject to remarks which follow in later paragraphs, the claim to substantial correctness of the returns may be conceded in the case of the export trade which is mainly in agricultural produce; but in regard to the import trade the classification is not sufficiently detailed, and too much is included under the head "all other articles of merchandise" which are greatly undervalued at the all-round rate of Rs. 3-8-0 per maund. The difficulty in dealing with the very varied character of a large portion of the imports is admitted, but in view of the fact that for administrative purposes it would be of great advantage to know how the State fares in respect to its external trade and commerce, it should be possible to devise a system of recording the contents and values of miscellaneous imports, which would not involve more trouble and expense than the information thus obtained would be worth.

The Reports of the Chief Inspector of Mines.

The information contained in these reports is probably fairly accurate as it is obtained from the accounts kept by the various Mining Companies, and in regard to certain items may be usefully employed to check the accuracy of the rail-borne traffic returns.

All the gold raised at the mines is exported *via* Bombay, and there should be a close correspondence between the export of gold and the output of the mines. Unfortunately, this correspondence does not occur and the rail-borne figures in recent years are not even approximately accurate. Similarly, all the coal consumed at the Kolar Gold Fields is imported by rail, and the returns of the mining companies show that their consumption is more than double the total imports into the State recorded in the rail-borne returns.

In 1908, the Southern Mahratta Railway Company and the Madras Railway Company were amalgamated, and the whole of the railway system of Mysore, both the broad gauge and the narrow gauge, in consequence came under one administration. From that time onwards, changes in the method of recording statistical information appear to have been made, and the returns now published in regard to certain items are misleading.

The silk industry in Mysore is extremely important, as also the silk trade carried on in the Kollegal taluk of the Coimbatore district, the whole output of which is exported *via* the Mysore railway system. The railway returns are in this case of no value, as the silk is usually exported by passenger train in "railway parcels," of the contents of which no complete record is kept. It has not been possible to accertain how the figures for the silk traffic have been compiled, but as they are obviously wrong and the industry is a very important one in Mysore, it seems desirable to introduce some compulsory system of declaring the contents and value of all parcels of silk at the comparatively small number of stations from which this traffic is despatched.

The object of the present review of the external trade of the State is to ascertain the material condition of Mysore during the past ten years and to bring to light such economic changes as may have been in progress. In regard to the internal trade, there is no direct information available; but on certain points the Census Report and the imports of raw material throw light upon the condition of the artizans; whilst the agricultural returns issued by the Revenue Commissioner afford very valuable information regarding the state of the industry upon which three-fourths of the population are directly dependent.

Census Returns.

In 1901, the population of Mysore was 5,539,399, and in 1911 it was 5,806,193, an increase of 4·8 per cent. Those dependent upon pasture and agriculture have increased from 3,743,813 to 4,243,435, or about 13·3 per cent; whilst those engaged in industrial occupations have decreased by 9·5 per cent, the number as reported in 1901 being 499,511, and in 1911, 443,132. Similarly, those engaged in trade have decreased by 15·3 per cent; the numbers in 1901 and 1911 being 278, 772, and 236,104, respectively.

The chief sources of wealth in the State are:—

1. The returns from agriculture;
2. The output of the mines and quarries;
3. The yield of the forest areas;
4. The energy derived from natural sources of power.
5. The increased value given to raw materials by manufacturing processes.

In Table I (*Vide* Appendix) is exhibited a summary of all the information obtainable from the Mysore Season and Crop Reports regarding the area of land under cultivation. From this it will be seen that the average net area cropped during the first five years of the period was 6,010,000 acres, and during the second five years 6,026,000 acres; which means that, for all practical purposes, the area under cultivation has remained stationary. Owing to variations in the seasons, the area under cultivation fluctuates from year to year, so that it is only possible to draw deductions from averages over extended periods. With the area under cultivation stationary, the increase of 13·3 per cent in the population dependent upon the area is a serious matter; and this is further aggravated by the fact that there has been a slight decrease in the average irrigated area; the figures for the first five years being 976,000 acres, and for the second five years 958,000 acres; whilst no satisfaction can be extracted from the fact that the area under sugar-cane has decreased by 10 per cent and that under coffee by nearly 16 per cent. On the other hand the average area under garden crops has increased from 153,000 acres in the first quinquennial period to 165,000 acres in the second period.

An examination of the Mysore Season and Crop Reports in detail discloses the fact that it is in the Malnad tracts of the State that the most serious retrogression has occured. A comparsion has been made between the average area under cultivation in the first three years of the decade, *viz.*, 1901—1904, and the last three years of the decade, *viz.*, 1908—1911, with the following result:— In the five Maidan districts the net cropped area has increased from 4,412,956 acres to 4,465,535 whilst in the Malnad districts of Hassan, Shimoga and Kadur the corresponding areas are 1,701,879 and 1,548,758 acres. Taking into accoun second crop cultivation, in the Maidan districts this has decreased from an averag 212,738 acres to an average 196,825 acres; and in the Malnad districts from 31,61 acres to 12,656 acres, the bulk of which has occurred in the Shimoga District The data from which these deductions have been drawn are given in Table I to which further reference may be made.

Table I a.

District.	Net area cropped.		Food Grains.		Double cropped area		Population.	
	1901-1904	1908-1911	1901-1904	1908-1911	1901-1904	1908-1911	1901	1911
Bangalore ...	641,533	654,251	575,944	571,418	8,431	1,534	800,000	850,00
Kolar ...	530,748	522,466	480,381	478,237	6,982	3,548	725,000	775,00
Tumkur ...	862,236	926,468	733,839	819,500	6,026	13,896	675,000	725,00
Mysore ...	1,357,222	1,351,108	1,338,940	1,329,557	162,421	163,761	1,300,000	1,337,50
Chitaldrug ...	1,021,217	1,011,242	876,313	853,318	28,878	14,086	512,500	562,50
Total of Maidan Dt.	4,412,956	4,465,535	4,005,417	4,052,030	212,738	196,825	4,012,500	4,250,00
Hassan ...	641,647	622,805	502,412	496,194	8,240	7,790	562,500	575,00
Shimoga ...	618,576	525,330	565,443	474,659	15,881	776	537,500	512,50
Kadur ...	441,656	400,623	278,228	246,592	7,490	4,090	350,000	337,50
Total of Malnad Dt.	1,701,879	1,548,758	1,346,083	1,217,445	31,611	12,656	1,450,000	1,425,00

From the Census Report is extracted the following information regarding the character of the seasons:—during the three years 1901—1904, the seasons were good, and the area under cultivation increased by nearly 200,000 acres. The following two years, 1905-1906, were very unfavourable, with the result that fully half a million acres of land were left out of cultivation. The next two years were fairly satisfactory, but in 1908-1909 there was considerable distress, from which a rapid recovery was made in the following two years, and the total cropped area in 1910-1911 was almost exactly the same as that in 1903-1904. We may therefore take it as certain that the pressure of the population on the soil is increasing; and there is no evidence to show that the changes in agricultural practice which have taken place during the period under review have in any way affected the value of the gross returns from cultivation. An examination of section 3 of Table 1 shows that there has been a very slight increase in the area of land devoted to the cultivation of food-crops, and that there has been a very considerable increase in the areas devoted to the cultivation of "cholam" and "ragi," with a corresponding decrease in the areas under "kambu" and "gram."

The cultivation of oil-seeds averaged 334,000 acres between 1901-1906, and only 284,000 acres between 1906-1911; whilst cotton has steadily increased throughout the whole period: in 1901, 46,133 acres were devoted to this crop, and in 1910-11, 101,591. The centre of the cotton trade is Davangere in the Chitaldrug District, where a number of ginning factories and baling presses have been established. There are two cotton-mills in Bangalore, both of which have made great progress, and the out-turn of yarn and woven cloth has doubled during the ten years under review. These mills, however, only absorb part of the increased out-turn of the State, and the balance is exported chiefly to Bombay. But there is a growing tendency on the part of Madras to compete for the long-stapled cotton grown in Chitaldrug.

The general conclusion which must be drawn from the agricultural statistics published by the Government of Mysore is that agriculture is in a stationary condition as regards the area under cultivation, and that the changes which are going on with regard to the distribution of crops, are due to the rise in value of some crops being more rapid than the general average. The rail-borne traffic in grains has very largely increased, especially in the export of paddy along the broad gauge railway, and the importation of rice from the Northern Circars along the metre gauge lines.

The gold industry in the Mysore State bulks largely in the eyes of the public owing to the phenomenal success which has attended the workings of the Kolar Fields. During the ten years under review, the total value of gold produced in the State amounted to Rs. 32,00,96,380, on account of which the State received in royalties Rs. 160,38,600. Indian economists have deprecated the working of these mines on the ground that the whole profits of the industry and a very considerable portion of the working expenses go to benefit people outside India; and they go so far as to advocate the leaving of the minerals in the soil till such time as the people of the country will be able to carry on mining operations themselves. The Kolar Gold Field has been unusually successful and the shareholders have received as dividends, up to the end of 1910, 40·06 per cent of the total value of the gold obtained. But in 1910, the percentage distributed as dividends was only 31·2; and as the workings get deeper the percentage of profit is likely to decrease. The large demand for power on the mines has enabled the Mysore State to utilise the water-power at Sivasamudram and to carry out a hydro-electric scheme which promises to be exceedingly profitable to the State, so long as the mines last, and to be of

possibly even greater benefit to the industries of the country, when cessation of work on the mines enables the power to be used for general industrial purposes.

At the present time, the demand for power is greatly in excess of the supply, and there is not the least doubt that, even when the Kannambadi storage reservoir is completed, the greatly increased supply of power will be readily absorbed by the mines, and by the industrial developments contemplated within the area served by the present distribution system.

Gold.

Table II.—(Taken from the Reports of the Mysore Geological Department).

Year.	Production.	Royalty.	Dividends.	Working Expenses in India.	Electric Power (Cauvery Scheme.)	Wages.
	£	£	£	£	£	£
1901... ...	1,923,081	95,219	874,157	761,916	...	405,450
1902... ...	1,964,508	97,365	825,988	777,553	...	430,694
1903... ...	2,284,072	113,138	1,019,346	880,799	103,026	468,653
1904... ...	2,323,194	115,081	1,041,939	921,086	79,013	482,796
1905... ...	2,373,457	117,081	1,066,615	872,196	99,300	493,124
1906... ...	2,167,636	107,427	866,778	884,780	117,921	514,776
1907... ...	2,041,129	101,156	660,015	908,009	126,239	530,371
1908... ...	2,055,857	101,693	582,487	886,800	102,460	551,240
1909... ...	2,092,177	103,278	636,181	931,380	112,969	543,258
1910... ...	2.106,132	117,802	658,584	875,761	88,044	545,580

Table II furnishes information as to the value of the output and the cost of working of the Kolar Gold Mines, and in regard to certain items shows what amounts are disbursed in India. Mysore, however, does not benefit by this large expenditure to any very great extent, due to the fact that the mines are situated close to the boundary between Madras and Mysore, and the great bulk of the requirements of the mines have to be imported from other parts of India. The wages disbursed every year amount to more than 75 lakhs of rupees, and the number of persons employed is now over 30,000, but the majority of them are drawn from other parts of India and though a considerable portion of those wages are spent in the Mysore State, it is chiefly on produce which has to be imported. Further the European and extra Mysore Indians save a very considerable portion of their pay and remit the same outside the State. In the absence of any precise data as to the amount, it will be assumed that it is about Rs. 20 lakhs per annum. It may be more, but it is hardly likely to be less.

Table III also extracted from the Reports of the Mysore Geological Department furnishes information regarding the consumption of fuel, timber and candles on the mines,but of these items only part of the firewood and timber is supplied from Mysore. Nearly all the coal comes from Bengal, but in 1907 there were large importations from Australia. Candles are obtained from Burmah, and even the major portion of the timber is brought by rail from the West Coast and from the Districts in Madras adjacent to Kolar. The rail-borne trade in timber has apparently been

over-valued, and this fact is recognised in the Memorandum issued in 1910-11, where, for the first half of the year, the rates for unwrought timber were taken as Rs. 4-4; for the third quarter as Rs. 4-6; and for the last quarter as Rs. 2-13; so that, in 1910-11, 822,937 maunds of timber exported to Mysore were valued at Rs. 32,31,220, whilst in 1911-12, 714,555 maunds were valued Rs. 20,32,780.

Table III.

Year.	Coal.			Firewood.		Timber.		Candles.		No. of persons employed.		
	Indian. Weight.	Foreign. Weight.	Value.	Weight.	Value.	Quantity.	Value.	Volume.	Value.	Below Ground.	On surface.	Total.
	Tons.	Tons.	£	Tons.	£	C.ft.	£	lbs.	£	Number.	Number.	Number.
1901	177,732	1,292	219,717	18,427	9,332	613,462	72,630	676,083	14,669	14,221	10,839	25,060
1902	198,492	762	223,492	19,385	8,762	738,594	88,833	742,381	15,279	15,739	10,529	26,268
1903	193,428	...	204,484	10,598	5,695	707,939	83,475	818,843	13,920	17,626	9,729	27,355
1904	202,850	134	206,371	10,327	5,383	743,255	87,454	848,898	15,399	17,605	11,889	29,494
1905	144,524	127	146,792	9,307	4,629	784,335	94,503	868,307	14,670	20,179	10,149	30,328
1906	138,156	441	137,720	11,626	4,998	851,531	101,651	863,644	14,393	19,889	12,372	32,261
1907	107,209	16,705	132,264	10,277	4,664	830,658	91,269	831,659	13,937	20,820	13,821	34,641
1908	113,321	988	122,202	4,614	2,075	886,369	96,983	839,889	14,020	18,525	14,089	32,614
1909	99,786	1,531	109,028	3,639	1,518	945,847	99,235	841,764	14,039	17,612	13,051	30,663
1910	102,939	...	109,610	4,594	1,689	630,658	76,877	841,886	14,049	16,657	12,025	28,682

Attention may be drawn to this large expenditure on timber, most of which is imported from the Madras Presidency, and chiefly from the West Coast. It seems strange that, with such a long railway lead, Malabar timber can successfully compete with the output of the Mysore forests; and it is possible that, with improved railway facilities in the Malnad districts, the Government Forests would obtain a larger share of the business. During the ten years under review, the gross revenue of the Forest Department has increased from 14·79 lakhs to 20·91 lakhs, and at first sight this might seem satisfactory. But account has to be taken of the fact that the area of Reserved Forests has been increased from 1,637,277 acres to 2,195,025 acres, so that the gross revenue per acre has only risen from As. 14 to As 15; and of this gross revenue, considerably more than one-half is due to the sandalwood monopoly, the sale proceeds from which are given in the Table IV below:—

Table IV.—Sandalwood.

Year.	Quantity sold during the year.	Value realised and due.	Year.	Quantity sold during the year.	Value realised and due.
	Tons.	Rs.		Tons.	Rs.
1901—1902...	1,900	8,94,538	1906—1907...	2,381	12,84,984
1902—1903...	2,136	10,06,836	1907—1908...	2,489	13,70,256
1903—1904...	2,272	10,26,470	1908—1909...	2,113	10,52,565
1904—1905...	2,418	12,12,128	1909—1910...	2,050	8,36,437
1905—1906...	2,466	12,52,393	1910—1911...	2,468	11,46,321

Coal and Coke.

Table V.—Imports of Coal and Coke.

Year.	Quantity in Maunds as per Railway Return.	Quantity used on the Mines in Maunds.
	Lakhs.	Lakhs.
1901—1902 ...	27·75	49·05
1902—1903 ...	28·28	51·63
1903—1904 ...	26·08	53·00
1904—1905 ...	24·50	55·62
1905—1906 ...	11·01	39·63
1906—1907 ...	20·96	37·98
1907—1908 ...	21·98	33·95
1908—1909 ...	18·59	31·32
1909—1910 ...	3·04	27·76
1910—1911 ...	1·88	28·21

Table V gives the information supplied by the reports of the rail-borne traffic, and may be compared with Table III, relating to the expenditure at the Kolar Gold Fields. Apart from the demand for coal at the mines, the total consumption in this State is insignificant, and is chiefly used on the railways. Mysore has no coal-fields of its own, and the bulk of the imports are rail-borne from Bengal, the traffic in sea-borne coal having greatly diminished.

Table VI.—**COTTON.**

Year	Export in lakhs of maunds	Import in lakhs of maunds	Excess of exports in lakhs of maunds	Consumption of Mills in lakhs of maunds	State produce in lakhs of maunds	Area under cotton in thousands of acres	Value of cotton crop per acre in rupees
1	2	3	4	5	6	7	8
1901—02 ...	0·09	0·25	— 0·16	0·305	0·15	46	6
1902—03 ...	0·27	0·15	0·12	0·363	0·48	51	18
1903—04 ...	0·49	0·07	0·42	0·227	0·64	70	23
1904—05 ...	1·35	0·15	1·20	0·301	1·50	60	50
1905—06 ...	0·99	0·44	0·55	0·404	0·95	75	30
1906—07 ...	0·74	0·32	0·42	0·391	0·81	77	23
1907—08 ...	1·52	0·19	1·33	0·441	1·77	54	65
1908—09 ...	0·58	0·39	0·21	0·506	0·71	59	26
1909—10 ...	0·70	0·33	0·37	0·607	0·98	81	36
1910—11 ...	0·72	0·29	0·43	0·515	0.95	102	28

To test the value of the statistical returns used in this review the Table VI has been compiled. Column 1 denotes the year; column 2 the export of raw cotton in maunds; column 3 the import of raw cotton in maunds (both

2 and 3 are taken from the rail-borne traffic returns); column 4 gives the difference between the figures in columns 2 and 3 and is the net export of cotton from the State; column 5 gives the quantity of yarn manufactured in the State obtained from the returns furnished to Government; column 6 is obtained by adding together the figures in columns 4 and 5 and, since hand spinning has entirely died out, the result is the weight of cotton grown in the State; column 7 is the area under cotton cultivation obtained from the Mysore Season and Crop Reports; column 8 is the value of the produce per acre calculated from information kindly furnished by the Agents of the Mills in Bangalore. The rates, which have been taken from the mill accounts are very much higher than those used in the Railway Returns and the values given in Table V are in consequence much greater than those found in the condensed abstract of the Railway returns appended to this note. The rapid rise in the price of cotton renders its cultivation much more profitable than was formerly the case and furnishes an adequate reason for the great extension of cotton cultivation which has taken place, chiefly in the Chitaldrug District. It seems obvious that the exports for the years 1904-05, 1905-06 and 1907-08 are over stated, whilst those for 1901-02 are too small. Assuming that the imports, are correctly given and that the yield in these years was normal the true exports would have been approximately in accordance with the figures geven in Table VI *a* which has therefore been substituted for the original table compiled from the railway returns. The price of cotton has varied greatly during the ten years, ranging from Rs. 19 per maund in 1903 to Rs. 30 per maund in 1910.

Table VI a.

Year.	Raw.				Twist and Yarn. (European).				Twist and Yarn. (Indian).				Piece Goods. (European).				Piece Goods. (Indian).				Others			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902	·46	9·20	·25	4·56			·12	7·54	·083	3·09	·22	7·00	·001	·04	·32	20·78	·024	1·13	·46	22·07	·001	·08	·01	1·02
1902—1903	·27	5·40	·15	2·54			·11	6·77	·11	3·90	·25	8·21			·38	24·42	·014	·66	·54	26·17	·01	1·43	·02	2·27
1903—1904	·49	9·32	·07	1·12			·11	6·64			·24	8·62			·40	23·88			·49	24·14	·02	2·48	·02	2·61
1904—1905	·52	13·00	·15	3·30			·14	9·13	·082	3·00	·31	11·49			·45	29·14	·014	·82	·50	24·43	·02	2·50	·02	2·34
1905—1906	·87	17·40	·44	8·14			·11	6·72	·143	5·07	·32	11·93			·45	29·89	·035	1·72	·61	30·98	·012	1·54	·02	2·90
1906—1907	·74	17·76	·32	7·04			·09	6·39	·12	4·59	·30	12·14			·40	27·56	·04	2·09	·54	28·99	·01	1·60	·011	2·64
1907—1908	·35	7·70	·19	4·37			·09	7·30	·163	6·26	·32	12·13			·45	30·63	·04	1·87	·58	32·88	·01	1·92	·04	3·20
1908—1909	·58	11·60	·39	7·41	·001	·10	·09	6·73	·13	4·96	·31	10·48	·003	·25	·44	29·01	·03	2·02	·62	37·52	·012	1·40	·04	3·66
1909—1910	·70	15·40	·33	8·25	·002	·12	·09	6·08	·163	6·19	·20	7·36			·42	28·21	·03	1·65	·50	30·01	·013	1·46	·02	2·15
1910—1911	·72	21·60	·29	8·27			·08	6·08	·124	4·98	·20	8·17			·46	30·37	·05	2·83	·48	28·64	·012	·51	·03	1·99

Note: The weight is in lakhs of maunds of 82⅔ lb and the value is in lakhs of rupees.

The assumption, however, that the imports are accurately returned is a very doubtful one and it seems probable that they are overstated and if this be so the yield of the cotton crop is underestimated. So far as is known all the imported cotton is purchased by the two mills in Bangalore and the information furnished by the Managers of these mills regarding the quantity of foregin cotton purchased by them does not agree with the statistics published in the railway returns.

Incidentally Table *VI a* shows that the Spinning Mills in Bangalore use a considerable quantity of imported cotton and that the extension of the spinning industry does not depend upon local supplies of raw material. The returns relating to the cotton trade are very instructive as clearly indicating that in the spinning industry local factors as regards supply of raw material and market for yarn are not of overwhelming importance. Four-fifths of the cotton grown in the State is exported as raw cotton whilst a large quantity of the cotton used in the Mills in Bangalore is imported. During the last 5 years 50 lakhs of rupees worth of yarn has been imported and 27 lakhs worth exported. Modern manufacturing enterprise is so highly specialized and the needs of any given area are so varied that even in India in the cotton yarn trade, Mills are compelled to draw in their supplies of raw material from over a wide tract of country and at the same time to find a market for their yarn over an equally wide tract. There is a good deal of cotton hosiery made in Bangalore which finds a market in Calcutta, whilst Japanese hosiery may be found competing in the bazaars of both Cities. One would imagine that if Bangalore hosiery can compete with Japanese in Calcutta, the latter would stand no chance in Bangalore. The explanation is that the quality of the goods is different and that there is a demand in both places for both qualities. The large exports of raw cotton and the even larger imports of Indian piece goods would seem at first sight to suggest that there is ample room in the State for an extension of cotton spinning and still more for cotton weaving, and doubtless the inference is correct, but those who would embark their capital on such a venture must needs first study the trade and obtain a clear idea of what they intend to do. The margin between success and failure is but a narrow one and it is hardly possible to exaggerate the importance of starting on sound lines and of subsequent efficient management. Evidence of this will be found in any stock and share list.

There is sufficient information available to ascertain the condition of the hand-loom industry. During the first five years of the period under review, the imports of European twist and yarn, which are all of fine counts, averaged 7·36 lakhs of rupees per annum; whilst in the last five years, the average has fallen to 6·52 lakhs, which may be taken as an indication that the demand for the fine cloths of the hand-loom weavers is decreasing. The bulk of the weaving done in the State is, however, in coarse counts, and with yarn of Indian manufacture. The data given in Table VII enable an estimate to be framed of the consumption of yarn by the local weavers.

Table VII.—Statement showing the quantity of Yarn in lbs. used by handweavers during the period 1901—1911.

	1901—02	1902—03.	1903—04.	1904—05.	1905—06.	1906—07.	1907—08.	1908—09.	1909—10	1910—11.
Yarn produced in Mysore Mills...	2,093,705	1,801,944	1,554,524	2,063,146	2,771,774	2,676,093	3,038,738	3,466,387	4,163,788	3,526,052
Imports of Yarn—European...	987,429	905,143	905,143	1,152,000	905,143	740,571	740,571	740,571	740,571	658,286
Indian...	1,810,286	2,057,143	2,174,857	2,550,857	2,633,143	2,468,571	2,633,143	2,550,857	1,645,714	1,645,714
Total...	4,891,420	4,764,230	4,634,524	5,766,003	6,310,060	5,885,235	6,412,452	6,757,815	6,550,073	5,830,052
Out put of cloths in the Mills ...	356,480	221,663	221,132	403,716	639,988	845,143	855,908	657,938	822,555	862,706
Exports of Yarn...	682,971	905,143	...	674,743	1,176,685	987,429	1,341,257	1,069,714	1,341,257	1,020,343
Total...	1,039,451	1,126,806	221,132	1,078,459	1,816,673	1,832,572	2,197,165	...	2,263,812	1,883,049
Difference, being Yarn used by handweavers in lbs. ...	3,851,969	3,637,424	4,413,392	4,687,544	4,493,387	4,052,663	4,215,287	5,030,163	4,286,261	3,947,003

The total quantity of yarn used by the weavers is ascertained by subtracting the exports from the imports, and adding the weight of the local manufacture. From this total, the quantity consumed in the manufacture of power-loom goods in the mills is deducted, and the balance is that consumed by the hand-loom weavers. It will be noticed that the consumption of yarn varies somewhat from year to year but there is no evidence that the weaver is losing ground. High prices such as prevailed at the beginning and at the end of the decade seem to be the most important controlling factor in the demand for woven goods.

DYES AND TANS.

Table VIII.

Year.	Alizarine and Aniline Dyes.				Cutch.				Indigo.				Myrabolams.				Tanning barks.				Turmeric.				Others.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901–1902			·001	·05			·01	·16					·133	·33	·003	·01	·77	1·47	·23	3·21	·01	·08	·04	·33	·02	·13	·03	·28
1902–1903							·01	·17					·20	·45			·94	2·28	·21	·54	·02	·10					·01	·21
1903–1904							·01	·20					·13	·29			·76	1·45	·20	·38							·01	·17
1904–1905							·007	·13			·003	·37	·23	·41			·77	1·47	·09	·17			·06	·35	·06	·23	·008	·15
1905–1906							·01	·17			·004	·51	·29	·56			1·12	2·41	·27	·57			·06	·40	·06	·22	·01	·21
1906–1907							·01	·19			·01	·68	·17	·34			1·68	4·01	·51	1·17			·08	·66	·07	·29	·04	·33
1907–1908	·03	1·73	·002	·11			·02	·44			·01	·70	·19	·41			1·44	3·61	·38	·96	·04	·37	·06	·47	·02	·11	·04	·41
1908–1909			·003	·14			·02	·52			·01	·68	·26	·55			1·84	4·86	·32	·85	·01	·10	·06	·43	·07	·29	·06	·40
1909–1910			·006	·29			·01	·28			·005	·60	·20	·40			1·75	4·71	·18	·49			·05	·33			·06	·40
1910–1911			·006	·28			·005	·11			·003	·47	·13	·23			1·61	4·33	·07	·20			·06	·57			·01	·25

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

There is a considerable export in tanning barks chiefly to Madras, which shows some slight tendency to increase, due, no doubt, to the greater demand of the Madras tanners. The internal consumption of tanning barks is also large, as the tanning trade is one of considerable importance in the State.

Fruits and Vegetables.

The export trade is of growing importance, and is chiefly to Madras. Fruit farming has recently received considerable attention, and it is probable that, in the future, there will be very considerable developments, as the climate and soils of the Mysore plateau appear to be eminently suited for scientific fruit culture. In this connection, attention may be drawn to the work which has been done during the past few years by Australian fruit experts. (*Vide* table IX on the following page.)

Table IX.—Fruits and Vegetables.

Year.	Fresh.			
	Exports.		Imports.	
	Weight.	Value.	Weight.	Value.
1901—1902	2·12	10·98	·80	4·10
1902—1903	2·86	10·57	·70	2·73
1903—1904	2·65	10·63	·77	3·21
1904—1905	3·24	12·80	·90	3·48
1905—1906	2·76	10·27	·94	3·36
1906—1907	2·91	13·83	·66	3·23
1907—1908	3·52	16·59	·73	3·54
1908—1909	3·19	18·06	·71	4·10
1909—1910	2·61	12·97	·80	4·20
1910—1911	2·62	13·97	1·47	8·12

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

Grains and pulses.

The railway returns furnish information under certain heads, as shewn in Table X :—

Table X.—Grain and Pulse.

Year.	Gram and Pulse.				Jawar and Bajra.				Rice in the husk.				Rice not in the husk.				Wheat.				Wheat flour.				Others, chiefly ragi			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02	·36	1·21	2·93	10·87	3·92	11·14	·004	·10	·39	·99	·112	·306	·04	·18	7·00	28·66	·004	·02	·40	1·92	..	..	·63	3·85	3·95	11·05	·53	1·43
1902—03	2·14	7·58	1·31	4·10	2·77	8·27	..	..	1·49	3·19	..	..	·07	·25	6·14	21·00	..	..	·40	1·71	·02	·21	·55	2·78	2·87	5·84	·57	1·02
1903—04	·72	2·25	2·30	6·82	·65	1·34	..	..	1·76	3·62	·10	·21	·30	1·38	6·27	20·75	..	..	·57	2·03	·03	·20	·80	3·95	4·21	7·44	·38	·57
1904—05	·24	·66	3·15	8·50	1·45	3·39	..	..	2·75	5·98	·24	·51	·11	·43	6·42	22·19	..	..	·66	2·28	·03	·21	·76	3·96	6·89	13·63	·17	·32
1905—06	·93	2·96	2·07	6·38	4·14	12·47	·04	·10	1·12	2·63	·07	·17	..	..	8·67	34·62	..	..	·77	3·02	·05	·37	·82	4·14	9·34	22·21	·18	·43
1906—07	·72	2·63	1·63	5·85	1·41	4·57	·07	·24	1·53	4·16	..	..	·17	·77	8·59	38·00	..	..	·65	2·77	·05	·40	·94	4·85	5·77	15·96	·19	·53
1907—08	1·67	6·64	1·86	6·90	2·17	6·96	·05	·14	6·49	19·15	..	..	·20	1·07	5·00	23·97	..	..	·90	4·35	·05	·39	·86	5·02	5·95	16·23	·15	·40
1908—09	1·22	5·37	2·42	11·11	2·69	9·83	1·05	3·73	3·29	11·13	·34	1·24	·14	·73	11·12	59·85	..	..	·90	5·06	·05	·39	·93	6·05	4·42	13·56	1·36	4·07
1909—10	1·13	4·42	3·43	13·21	·67	2·10	1·82	5·91	1·11	3·04	·23	·67	·06	·30	14·26	65·78	..	..	·69	3·54	·04	·28	·86	5·40	1·17	3·06	1·36	3·82
1910—11	1·94	6·16	2·57	8·34	1·26	3·87	·10	·31	3·82	10·15	·04	·12	·07	·29	7·84	33·24	..	..	·80	3·72	·03	·29	·91	5·13	3·38	8·73	·10	·25

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

Exports of Jawar and Bajra largely exceed the imports. Still more is this the case with rice in the husk; but there is a very large and increasing import of rice not in the husk, and of gram and pulse. The rise in the value of food stuffs is well exemplified in the returns for paddy and rice; the average price of the former rose from Rs. 2·18 per maund during 1901-06 to Rs. 2·94 per maund during 1906-11, equivalent to an increase of 33 per cent; similarly the rates for rice increased from Rs. 3·66 to Rs. 4·89, also equal to 33 per cent.

The steadily-increasing imports of wheat and wheat-flour may be taken as evidence of the introduction of a higher standard of living among the wealthier classes. It is rather unfortunate that so much of the railway traffic in grains should not be classified, and should appear under the term "others." This undoubtedly includes ragi, the movements of which are sufficiently important to be separately recorded, and a variety of seeds, and the exports in most years considerably exceed the imports. Apart, however, from these items Mysore, at the present moment, does not grow enough food to meet the normal requirements of the people. Naturally, the imports and exports fluctuate very considerably, being dependent upon the character of the season, but to nothing like the extent that one would expect. In a good season there is not the slightest doubt that the people consume a much larger quantity of food than in a bad season. The inference to be drawn is that in seasons of scarcity a considerable proportion of the population are underfed. The total produce of the soil in a very good year may be twice as much as in a famine year but the fixed charges which have to be met remain the same and sufficient produce has to be sold to meet them. The balance only is available to the cultivator and his labourers and there is not the least doubt that the latter class at times suffer a good deal of privation.

Hides, skins and leather.

Table XI.

Year.	Hides of Cattle.								Skins of Sheep and Goats.								Leather.							
	Dressed or Tanned.				Raw.				Dressed or Tanned.				Raw.				Unwrought.				Wrought including Boots and Shoes.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02	...	...	·02	·51	·06	1·24	·05	1·04	...	...	...	...	·76	29·07	·10	3·61	·33	17·46	...	...	(23)	·06	·002	·99
1902—03	...	...	...	...	·03	·76	·07	1·61	...	...	·006	·46	·85	30·66	·13	4·28	·25	13·28	...	...	...	...	·001	·18
1903—04	...	...	...	...	·03	·64	·06	1·48	...	...	...	...	1·01	34·86	·19	5·19	·301	17·19	...	...	·003	·32	·006	·79
1904—05	·003	·13	·006	·21	·07	1·47	·07	1·64	·15	13·16	·003	·22	·98	35·83	·23	8·04	·304	16·56	·009	·53	·002	·31	·005	·81
1905—06	...	...	·006	·17	·19	3·91	·19	4·27	·21	17·67	·004	·33	1·32	48·66	·42	14·16	·443	24·80	·011	·54	...	...	·007	·84
1906—07	...	...	·01	·32	·18	3·70	·10	2·36	·01	·84	·01	·96	1·41	53·04	·26	8·43	·531	31·27	·011	0·80	·003	·31	·005	·64
1907—08	·01	·24	·01	·34	·07	2·11	·06	1·87	·02	1·69	·01	·72	·84	34·24	·26	8·98	·361	21·49	·01	0·81	·003	·35	·004	·47
1908—09	·05	2·05	·01	·54	·12	3·69	·13	3·93	·26	28·76	·01	1·08	1·03	35·17	·28	8·87	·312	18·49	·012	0·70	·001	·34	·003	·36
1909—10	·05	2·51	·01	·47	·07	1·88	·10	2·61	·04	4·61	·002	·17	·97	33·64	·22	7·40	·523	31·72	·011	0·66	·02	2·52	·001	·10
1910—11	...	...	...	...	·02	·53	·32	9.66	...	...	·001	·13	·86	31·30	·37	13·50	...	...	·011	0·25	...	...	·001	·16

Note:—The weight is in lakhs of maunds of $82\frac{2}{7}$ lbs. and the value is in lakhs of rupees.

The tanning trade in the South of India is of very great importance, and partly owing to increased supplies of raw material, and partly to the very great rise in prices, amounting to about 40 per cent in the last ten years, the value has gone up by leaps and bounds. In this satisfactory state of things, Mysore has fully participated. From the "Season and Crop Report" for 1910-11, the following information regarding the numbers of live stock in the State has been extracted:—

Bulls and bullocks	...	...	...	1,631,171
Cows	...	...	...	1,581,341
Buffaloes-bulls	...	...	...	89,510
„ cows	...	...	...	474,730
Young stock	...	...	...	1,238,368
Sheep	...	...	...	2,732,199
Goats	...	...	...	1,762,036

There has been no important change in these numbers in recent years and the variations in the volume of exports are largely due to the vicissitudes of the seasons. In bad years the mortality is much higher than when pasture and water are plentiful and this is reflected in the large exports of hides and leather in the years 1906-07 and 1908-10 following on the bad seasons of 1905-06 and 1908-09.

The supply of raw material is mainly derived from the slaughter of sheep and goats, and from the casualties among the cattle; though a fair supply of good hides is obtained from the slaughter-houses in Bangalore and Bowringpet. In addition, the railway statistics shew that there are considerable imports of raw material, which are tanned, and re-exported.

The values assigned to the exports of unwrought leather by the Board of Revenue in Madras were about 2½ times too great till they were changed in 1910-11. As the Mysore trade in this item is very large the reduction of the values by 60 per cent is an important correction in the hitherto accepted statistics.

During the year 1906-07, the value of business reached its highest level, the total value of the exports being ninety lakhs. The chief tanning centre is Bangalore, where there are between 30 and 40 tanneries, the whole out-turn of which is sent by rail to Madras and exported to Europe.

The very large exports of raw skins to the Madras Presidency where they are tanned and exported by sea is probably due to the trade being in the hands of Labbais, who own skin tanneries in the Palar valley at Vaniambadi and Ambur. There is no reason why the tanning should not be done in the neighbourhood of Bangalore but it will be difficult to change the course of the trade. The establishment of a modern tannery on the Mysore road just outside Bangalore, which is fully equipped with machinery for turning out chrome leather, is a new departure the development of which is full of interest.

Metals.

Mysore is entirely dependent on outside sources of supply for the metals used for industrial and constructive purposes, and for domestic utensils. The value of the raw material used by the brass and copper-smiths in the country is very small but shows a slight tendency to increase. For instance, during the first period 1901-06, the average imports of brass were 1·104 lakhs, whilst during the second period 1906-11, the average imports were 1·42 lakhs. The primitive state of

the industry may be gauged from the fact that the imports in some years are five times as great as in others and it is fairly obvious that the bulk of the people engaged in the indigenous industry must have other, and possibly more important, sources of livelihood. Imports of brass and copper manufactures are in value nearly double those of the raw material, from which we may assume that the decadent state of the metal industry in Mysore is largely due to the effect of the competition of other industrial centres in India. It is only in the towns that any large or increasing use is being made of glass, earthenware, and enamelled iron-ware.

Metals.

Table XII.

Year.	Brass-unwrought.				Brass-manufactures				Copper-unwrought.				Copper-manufactures.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902 ...			·02	·55	·01	·43	·05	2·64	(23)	·01	·01	·41	·004	·18	·15	6·23
1902—1903 ...	·01	·46	·03	·84	·03	1·05	·05	2·43	...	...	·01	·43	·004	·17	·015	·82
1903—1904 ...	·01	·38	·046	1·55	·02	1·05	·05	1·42	·004	·17	·02	·75	·01	·25	·03	1·20
1904—1905 ...	...	...	·037	1·30	·02	1·04	·05	2·34	·007	·27	·02	·64	·014	·65	·06	2·39
1905—1906 ...	·01	·41	·03	1·28	·02	1·18	·05	2·70	·008	·31	·01	·61	·014	·57	·018	1·02
1906—1907 ...	·02	·58	·015	·44	·02	·87	·04	1·75	·002	·11	·003	·17	·009	·48	·017	·99
1907—1908 ...	·02	·73	·02	·66	·02	·99	·04	2·13	·004	·23	·012	·56	·008	·43	·16	7·67
1908—1909 ...	·01	·40	·06	2·09	·014	·80	·07	3·29	·003	·14	·023	1·07	·003	·17	·04	1·86
1909—1910 ...	·02	·52	·06	1·81	·02	·95	·07	3·45	·004	·17	·034	1·18	·004	·22	·04	1·84
1910—1911 ...	·013	·37	·06	2·09	·013	·60	·05	2.34	·003	·14	·025	1·00	·002	·13	·02	1·08

Note:—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

The statistical information regarding the imports of iron and steel (Table XIII) is obviously very deficient in regard to classification, and it is very difficult indeed to draw any definite conclusions regarding this branch of business. During the first five years, the total value of the imports was 114·48 lakhs, and during the second five years 118·75 lakhs. As has already been stated, the values are conventional, but an examination of the returns points to the conclusion that the increased value of the imports, slight as it is, is due entirely to changes in the classification, whereby higher rates have been assigned to the various articles imported. All that can be said is that the railway returns afford no evidence whatever of progress in regard to the employment of iron and steel or machinery.

The Kolar Gold Mines and the Sivasamudram hydro-electric scheme are the only industrial undertakings for which machinery and structural iron and steel have been imported on a large scale. Mysore has only just begun to replace hand labour by machinery and a few oil engines have been set up to drive pumps, sugar mills and rice hullers. With the exception of a short narrow gauge railway in the Shimoga

District there has been no new railway construction during the ten years under review and railway imports have been confined to maintenance demands and to the steel work for one or two bridges which have been renewed. The high rates charged for electric energy in Bangalore and Mysore, the only towns in which it is available, have restricted its use for small industrial installations.

Table XIII.—Metals.—*(Continued,)*

Year.	Iron and steel (unwrought.)				Iron and Steel (wrought).												Metallic Ores.				Others.			
					Bars, sheets, etc.				Machinery and Mill work.				Other manufactures											
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02	·071	·225	·98	3·38	·02	·39	·37	3·87	·15	·73	1·02	4·93	·07	·78	1·29	18·91	..	..	..	..	·002	·05	·07	3·22
1902—03	..	..	1·03	2·86	..	..	·12	1·75	·08	·43	·89	4·95	·04	·75	·97	11·18	..	..	..	..	·01	·58	·08	3·47
1903—04	..	..	·96	3·48	..	..	·24	·86	·07	·41	1·12	6·69	·01	·21	·96	11·41	..	..	..	..	..	..	·08	2·47
1904—05	..	..	1·13	4·07	..	..	·34	1·42	·07	·37	1·34	7·45	·08	·91	1·10	12·12	..	..	..	..	·015	·56	·07	2·05
1905—06	·04	·12	1·27	4·47	·12	·59	1·49	9·68	·03	·11	·11	·47	·08	1·22	·10	1·53	4·13	3·21	..	..	..	..	·07	2·01
1906—07	..	..	·08	·14	·03	·16	1·25	6·52	·07	·91	·54	4·86	·07	·74	·78	10·64	13·63	10·22	..	..	·025	·60	·16	2·78
1907—08	·06	·13	·15	·35	·03	·17	2·07	11·44	·18	2·28	·75	7·60	·10	1·12	·67	6·15	19·74	14·81	..	..	·02	·65	·07	2·57
1908—09	·06	·12	·16	·41	·09	·51	1·80	10·06	·06	·65	·54	5·15	·10	·95	·75	6·80	12·94	9·71	..	..	·025	·73	·10	2·91
1909—10	·05	·14	·12	·36	·07	·36	1·73	9·36	·07	·64	·38	3·69	·09	·81	·61	5·55	5·94	4·46	..	..	·02	·68	·08	3·04
1910—11	..	..	·08	·29	·02	·14	1·53	8·38	·03	·32	·66	5·98	·06	·63	·59	5·02	8·29	6·21	..	..	·02	·40	·14	4·03

Note:—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

Table XIV.—**Manganese Ore.**

Year.	Sold.		Royalty.
	Weight in Tons.	Value Rs.	Rs.
1905—1906	15050	3,21,185	5,643
1906—1907	50247	10,37,901	20,209
1907—1908	70242	Not available	25,822
1908—1909	34204	...	13,500
1909—1910	29755	...	16,883
1910—1911	17960	...	7,577
1911—1912	8976	...	3,366

Metallic Ores

During the period under review, manganese and chrome-ore mining were developed, and for a short time there was a very considerable boom owing to the shortage of supplies caused by the Russo-Japanese war. In 1905-06, the export of manganese ore was valued in the Madras Rail Borne returns at Rs. 68·34 lakhs, but as will be seen from Table XIV which has been compiled from the Annual Administration Reports, the total exports were only 15,050 tons valued at Rs. 3,21,185 and this figure has accordingly been substituted. In subsequent years, there is approximate co-incidence between the figures derived from the two sources. As shewn in Table XIV the output of the mines has shrunk to insignificant values, and is hardly likely to rise again unless some unforeseen circumstances again cut off the

usual sources of supply upon which the iron industry of Europe and America is accustomed to rely. For a year or two chrome mining was prosecuted with some vigour but in the end the deposits proved to be not worth working.

Oils.

Table XV.

Year.	Kerosine				Castor.				Cocoanut.				Others.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02	·002	·01	1·79	7·89	·01	·17	·021	·24	·04	·40	·041	·62	·002	·03	·21	3·41
1902—03	...	...	1·69	7·23	·19	...	...	...	·03	·28	·04	·69	...	...	·21	3·36
1903—04	...	...	1·94	9·38	...	...	...	...	...	...	·04	·54	...	...	·27	3·74
1904—05	·09	·40	2·22	10·20	·02	·19	...	...	·01	·19	·05	·65	...	...	·33	4·67
1905—06	·06	·29	2·14	9·34	·01	·16	·03	·40	·01	·17	·05	·68	·02	·29	·38	6·21
1906—07	·03	·12	2·43	10·83	·02	·37	·06	·85	·01	·28	·03	·62	·02	·33	·42	7·19
1907—08	...	...	2·63	12·04	·02	·32	·03	·43	·01	·25	·05	1·00	·03	·66	·37	6·70
1908—09	·03	·15	2·76	12·52	·02	·23	·07	·93	·01	·12	·05	·79	·04	·66	·50	8·81
1909—10	·05	·23	2·60	12·03	·03	·40	·07	1·00	·02	·38	·07	1·28	·02	·37	·48	8·13
1910—11	·04	·22	3·10	15·48	...	...	·09	1·44	·02	·33	·06	1·40	·02	·51	·40	7·72

Note:—The weight is in lakhs of maunds of $82\frac{2}{7}$ lbs. and the value is in lakhs of rupees.

Table XVI.—Oil Seeds.

Year.	Castor.				Earthnuts.				Linseed.				Poppy.				Rape and Mustard.				Til or Gingelly.				Others.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight	Value.
1901—1902	1·60	7·33	·02	·06	·014	·07	·10	·44	·01	·08	·003	·02	...	...	·04	·27	·12	·72	...	...	1·91	11·35	·03	·14	·05	·14	·34	1·07
1902—1903	1·34	5·45	...	...	...	...	·05	·20	·03	·19	...	...	...	...	·03	·22	·06	·30	...	...	3·82	21·57	·07	·38	·32	1·07	·20	·59
1903—1904	·45	1·42	...	...	...	...	·08	·28	·03	·18	...	...	...	...	·05	·24	·11	·52	...	...	5·22	22·63	·04	·18	·05	·16	·10	·31
1904—1905	·39	1·35	...	...	...	...	·03	·11	...	...	...	...	...	...	·04	·17	·08	·35	...	...	3·53	15.74	·03	·19	·06	·19	·18	·51
1905—1906	·33	1·51	...	...	...	...	·07	·33	·03	·15	...	...	...	...	·04	·24	·16	·92	...	...	2.14	14.04	...	...	·19	·71	·28	·95
1906—1907	·27	1·38	·07	.37	...	...	·06	·31	...	...	...	...	...	...	·05	·32	·23	1·42	...	...	1·70	11·26	·08	·53	·30	1·26	·36	1·34
1907—1908	·41	2·05	...	...	·04	·27	·06	·29	...	...	·01	·04	...	...	·05	·38	.30	1·98	...	...	2·84	21·30	·08	·64	1·51	5·89	·19	·75
1908—1909	·14	·70	...	...	·02	.11	·26	1·35	...	...	...	...	...	...	·05	·39	·21	1·23	...	...	2·36	17·71	·08	·58	·38	1·47	·32	1·28
1909—1910	·39	2·13	...	...	·07	.39	·29	1·53	...	...	...	...	...	...	·05	·35	·19	·99	...	...	3·91	24·40	·05	·31	·72	2.83	·38	1·44
1910—1911	·44	2·40	·05	·25	·42	2·37	·08	·54	...	...	...	...	...	...	·06	·45	·20	1·11	...	...	3·09	23.53	.02	·15	1·58	5·49	·20	·76

Note:—The weight is in lakhs of maunds of $82\frac{2}{7}$ lbs. and the value is in lakhs of rupees.

Oil seeds.

During the ten years, the imports of kerosine oil have nearly doubled in value, and are reported to be steadily increasing. This indicates changes in the habits and customs of the people, rather than any increase in the expenditure on oil. It has already been noted that the area under oil-seeds is decreasing, and it is almost certain that the local demand for vegetable oils is much less than was formerly the case. Elsewhere in India the demand is apparently increasing if the evidence as to rise in prices is to be relied on. Taking average values for Gingelly seeds over periods of 5 years, there has been a rise in price amounting to 37 per cent between 1901-06 and 1906-11. This accounts for the substantial increase in the value of the exports which have risen from Rs. 17·07 lakhs to Rs. 19·64 whilst the weight has fallen from 3·32 to 2·78 lakhs of maunds. Attention may also be drawn to the exports of castor seed and "Copra" (*Vide* Provisions) and the imports of oils extracted from these vegetable products.

Provisions.

Table XVII.

Year.	Dried Fruits and Nuts.				Ghee.				Others.			
	Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902...	1·54	21·22	·33	4·29	·001	·03	·19	6·76	·59	11·62	·43	8·53
1902—1903...	1·78	24·74	·32	4·18	...	...	·18	6·04	·64	10·78	·45	8·20
1903—1904...	2·20	29·55	·33	4·43	...	...	·21	6·40	·42	7·03	·84	16·38
1904—1905...	1·92	26·07	·39	5·28	·005	·18	·19	5·83	·59	10·13	·70	14·30
1905—1906...	1·99	27·06	·36	5·05	...	...	·21	7·47	·60	9·27	·49	8·57
1906—1907...	2·13	29·69	·29	4·28	·01	·23	·22	8·94	·28	4·70	·88	15·36
1907—1908...	1·17	18·75	·52	7·76	·003	·12	·175	7·21	·47	7·49	·87	16·17
1908—1909...	1·46	27·50	·50	7·44	·01	·27	·18	7·09	·70	11·58	·61	10·95
1909—1910...	1·90	35·39	·43	6·57	·005	·22	·22	8·89	·62	9·93	·79	14·27
1910—1911...	·63	12·09	·58	8·74	·01	·35	·154	6·59	·36	4·45	·36	6·27

Note:—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

This includes a variety of products having little connection with one another. Under the heading "Dried fruits and nuts," is included the very large export to Bombay and Northern India, of "Copra," the chief centre of the cultivation of cocoanuts being the Tumkur District, in the neighbourhood of Tiptur and Chiknayakanahalli.

From the data given in Table XVII it will be seen that, whilst the exports are decreasing in weights, their value remains practically stationary, and the rise in prices as calculated on the average values of the two quinquennial periods amounts

to 24 per cent. It is a curious fact that in face of this substantial inducement to increased cultivation, the yield should be a decreasing one. Moreover, there is a very marked tendency for the imports to increase both in weight and in value.

Ghee is another item included under this heading to which attention may be drawn. The average value of the imports falls not far short of 8 lakhs of rupees a year. It would seem to indicate that, notwithstanding the large number of cattle maintained in the State, very little attention is paid to their milking qualities. It also suggests the possibility of introducing vegetable substitutes in place of ghee. There are two such manufactories at work in the Bombay Presidency, and it is fairly certain that if one were started in Mysore, there would be a good market for its out-turn.

Salt.

Table XVIII.

Year.	Import.		Year.	Import.	
	Weight.	Value.		Weight.	Value.
1901—1902	5·48	19·57	1906—1907	6·18	14·52
1902—1903	5·16	18·21	1907—1908	6·41	12·11
1903—1904	5·38	15·94	1908—1909	6·43	11·65
1904—1905	5·09	15·22	1909—1910	7·35	13·39
1905—1906	5·76	14·30	1910—1911	6·71	12·81

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

The local production of salt is insignificant, and all the salt consumed in the State is imported. In 1903, in 1905, and again in 1907 the duty was reduced, and it is now at the uniform rate of Re. 1 per maund. The effect of the reduction of duty is seen in the increased consumption since 1906. The average imports during the five years when the duty was high were 5·37 lakhs of maunds per annum; the average imports during the five years when the duty was low were 6·51 lakhs of maunds per annum. The increase in consumption is strikingly small, considering the material reduction in price consequent upon the reduction of duty.

Silk.

Table XIX.—Silk Raw.

Year.	Indian.		Year.	Indian.	
	Export.			Export.	
	Weight.	Value.		Weight.	Value.
1901—1902 ...	·051	34·56	1906—1907 ...	·062	37·60
1902—1903 ...	·053	33·47	1907—1908 ...	·062	48·17
1903—1904 ...	·054	35·07	1908—1909 ...	·064	38·39
1904—1905 ...	·042	28·82	1909—1910 ...	·048	34·97
1905—1906 ...	·058	39·12	1910—1911 ...	·041	22·70

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

The silk trade in Mysore is of very great importance, as the annual production, which is mostly exported, is very large, and has been estimated to be worth as much as a crore rupees a year in good seasons. As already mentioned, the railway returns are, without doubt, extremely inaccurate, and no useful conclusions can be drawn from them. There is a large area under mulberry cultivation in the Kollegal taluk, Coimbatore District, and the whole production of this taluk finds its way to the markets through Maddur. For some time past, various diseases have prevailed among the silk-worms, and the merchants engaged in the trade estimate that the annual production has decreased by at least 40 per cent. Whether this figure be accurate or not, there is unequivocal evidence that the output of silk has seriously decreased. It is a matter of considerable importance that accurate information should be collected regarding this industry, as not only is it still of great value but it is possibly capable of development, if the silk-worm rearers can be induced to adopt more scientific methods of rearing.

Spices.

Table XX.

Year.	Betel-nuts.				Cardamoms.				Chillies.				Pepper.				Others.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902 ...	·93	22·56	·30	6·98	·01	2·67	...	...	·04	·31	·21	1·57	·03	·93	·03	1·08	·16	3·36	·38	10·87
1902—1903 ...	1·10	24·81	·40	8·67	·03	5·56	...	...	·12	·62	·17	1·03	·01	·40	·05	1·46	·14	2·76	·24	5·47
1903—1904 ...	1·08	23·74	·28	5·75	·04	6·41	...	...	...	...	·37	2·53	·04	1·09	·04	1·24	·10	2·46	·42	11·63
1904—1905 ...	·75	18·44	·28	6·80	·03	5·48	...	...	·05	·42	·56	5·73	·02	·61	·04	1·35	·13	3·66	·32	9·83
1905—1906 ...	1·07	24·89	·38	8·53	·03	4·58	...	...	·05	·65	·28	3·20	·03	·86	·04	1·38	·32	12·77	·41	15·61
1906—1907 ...	1·10	27·79	·46	11·47	·03	4·11	...	...	...	...	·52	3·30	·02	·62	·03	·84	·18	8·98	·34	12·30
1907—1908 ...	1·10	28·40	·43	11·39	·02	3·78	...	...	·13	·93	·27	2·13	...	...	·04	1·02	·19	5·53	·26	8·14
1908—1909 ...	1·04	26·92	·52	13·24	·03	5·50	...	...	·06	·71	·40	4·30	·02	·40	·04	1·10	·10	2·95	·20	11·37
1909—1910 ...	1·07	28·00	·55	13·64	·03	3·84	...	...	·22	2·53	·22	2·55	·03	·58	·03	·66	·44	24·54	·50	11·35
1910—1911 ...	1·19	30·16	·48	11·90	·03	4·71	·001	·15	·14	1·64	·30	3·77	·03	·82	·03	·77	·49	25·40	·41	11·00

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

There are large exports and large imports of betel nuts, and as both show a tendency to increase in value the net result is that the balance of exports from Mysore remains, stationary. It is unfortunate that such a large proportion of the total value of the trade in spices should be included under "others," which show a strikingly large and unexplained increase in the exports during the last two years of the period under review. (*Vide* Table XX). It has not been possible to ascertain to what these increases are due. It is perhaps a striking comment on the state of agriculture in Mysore and the imports of both "chillies" and pepper should exceed the exports; though it is true that neither of them are large.

Sugar.

Table XXI.

Year.	Refined or crystallised including Sugar-candy.				Unrefined.							
					Sugar.				Gur, rab, jaggery, molasses, etc.			
	Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902 ...	·25	2·86	·47	5·35	·48	3·39	·08	·58	1·20	7·90	1·55	7·04
1902—1903 ...	·50	5·56	·25	2·80	·72	4·59	·09	·48	1·63	9·58	·51	2·04
1903—1904 ...	·45	4·46	·21	1·54	·69	4·88	·02	·14	1·02	5·50	·88	3·55
1904—1905 ...	·37	4·03	·15	1·45	·71	5·24	·29	2·08	1·33	8·79	1·24	6·64
1905—1906 ...	·35	4·13	·33	2·53	·84	6·03	·05	·35	1·80	12·58	1·40	7·16
1906—1907 ...	·28	2·94	·42	2·96	·77	5·20	·05	·33	1·95	13·10	·86	3·71
1907—1908 ...	·20	2·05	·98	7·89	1·10	7·56	·07	·47	2·57	17·21	·50	2·40
1908—1909 ...	·38	4·00	·98	8·37	·78	5·69	·07	·51	1·62	10·46	·80	4·03
1909—1910 ...	·31	3·25	·93	8·19	·59	4·66	·12	·89	·35	2·31	1·19	6·57
1910—1911 ...	·25	2·56	·98	8·95	·72	5·95	·06	·48	·93	7·04	2·13	12·50

Note:—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

There is a considerable trans-frontier trade in the various forms of sugar, as classified in the railway returns. The imports of refined or crystallized sugar are increasing, whilst the exports are decreasing. The exports of unrefined sugar show a slight tendency to increase, but the exports of jaggery during the last two years have seriously fallen off, and there has been at the same time a marked increase in the imports. This state of things might be expected, as it was noted that the agricultural returns show that the area under sugar-cane cultivation is decreasing.

Wood.

Table XXII.

Year.	Timber-unwrought.				Manufactured.			
	Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—1902	·73	1·39	9·41	6·19	·13	1·88	·18	2·53
1902—1903	·78	1·43	8·95	16·49	·07	·66	·17	1·67
1903—1904	·46	·87	8·59	17·47	·08	·89	·13	1·87
1904—1905	·86	1·77	9·77	21·35	·06	·90	·13	1·90
1905—1906	1·55	3·12	9·76	22·61	·09	1·25	·13	1·92
1906—1907	1·34	2·93	11·31	27·09	·11	1·37	·21	2·60
1907—1908	2·27	5·17	10·75	23·95	·13	1·54	·16	2·31
1908—1909	1·77	4·17	8·15	19·28	·12	1·58	·13	1·82
1909—1910	1·46	3·93	7·60	21·34	·14	1·87	·12	1·71
1910—1911	1·30	3·26	8·92	23·16	·11	·42	·23	·88

Note:—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

Gross Value of Produce of Mysore Forests.

Table XXIII.

Year.	Timber.		Firewood and Charcoal.	Bamboos.	Sandalwood.	Grass and other minor Forest produce.	Gross Revenue in lakhs.
	Quantity in cft.	Value. Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1901—02... ...	...	...	...	...	...	...	13·80
1902—03... ...	298,943	1,86,657	62,611	58,451	10,03,351	1,36,490	14·80
1903—04... ...	619,516	2,51,633	63,764	52,277	10,35,687	1,66,700	15·95
1904—05... ...	869,251	4,04,473	69,827	62,010	12,13,265	1,60,508	19·24
1905—06... ...	968,325	4,40,142	67,935	43,859	12,47,324	1,84,792	20·89
1906—07... ...	812,502	3,65,298	69,784	31,203	12,47,810	1,83,536	19·13
1907—08... ...	844,055	4,27,454	69,882	58,063	14,19,166	2,72,236	22·76
1908—09... ...	833,782	4,62,918	62,844	52,804	9,23,974	2,71,045	18·01
1909—10... ...	798,950	4,20,444	55,264	55,241	9,25,736	2,72,378	18·58
1910—11... ...	802,019	4,14,644	53,685	55,936	11,71,647	3,48,178	20·91

Attention has already been drawn to the fact that the value assigned to the imports of wood in the railway returns has been greatly over-estimated and corrected figures have been entered in the Table XXII. The trade is largely influenced by the demand for timber at the Kolar Mines, but to some extent it has also been inflated by the building activity due to the construction of new extensions in Bangalore and Mysore. Although the Mysore forests produce teak in abundance, there are large imports of Burmah teak, *via.*, Madras. Table XXIII, extracted from the Mysore Administration Reports gives the revenue derived under the heads specified from the Government Forests. The outturns and value of timber given in this statement may be contrasted with those given in Table III relating to the Mines.

Wool.

Table XXIV.

Year.	Raw.				Manufactured.															
					Carpets and rugs.				Piece-goods—European.				Piece-goods—Indian.				Other sorts of manufactures.			
	Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02 ...	·02	·59	·07	1·48	...	...	(·16)	·02	...	...	·003	·25	...	...	·003	·22	·08	12·78	·004	·49
1902—03 ...	·02	·39	·05	·97	·003	·19	·005	·42	...	...	...	...	...	...	·001	·17	·08	10·01	·023	2·86
1903—04 ...	...	...	·04	·78	...	...	...	...	...	...	...	...	...	...	·003	·24	·06	6·66	·002	·23
1904—05 ...	...	...	·04	·72	·003	·23	·002	·17	...	...	·002	·13	...	...	·003	·25	·06	6·49	·012	1·95
1905—06 ...	...	...	·08	1·69	...	...	...	...	...	...	·001	·11	...	...	·004	·35	·04	5·03	·022	2·71
1906—07 ...	·01	·25	·01	·24	...	...	...	...	...	...	...	...	...	...	·004	·35	·04	4·59	·022	2·58
1907—08 ...	·004	·14	·02	·31	·002	·16	·002	·23	...	...	...	...	·001	·12	·007	·52	·05	6·10	·022	2·47
1908—09 ...	·01	·13	·07	1·13	·004	·24	...	...	...	...	...	...	·002	·15	·007	·54	·06	5·83	·004	2·20
1909—10 ...	·01	·21	·06	1·03	·004	·28	·002	·16	...	...	...	...	...	...	·006	·54	·04	3·89	·021	2·01
1910—11 ...	·01	·19	·08	1·28	·01	·36	·002	·18	...	...	...	...	·011	·68	·004	·34	·04	3·96	·032	2·34

Note :—The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

The external trade of the Mysore State in wool is not of great importance, but the imports of raw wool are usually in excess of the exports. Mainly due to the existence of the woollen mills in Bangalore, there is a considerable export of manufactured goods, which shows however no tendency to increase. This is largely due to the restricted supply of raw wool which can be obtained in Bangalore. The indigenous wool industry, for local consumption, is of considerable, but of unknown value. It has, however, to be supplemented by imports valued at between two and three lakhs of rupees a year. Of late years, there has grown up a considerable trade in shawls, some of which are manufactured at Cawnpore, but the bulk of them apparently come from Germany. Considering the coldness of the climate at certain seasons of the year, it is surprising that the trade in woollen manufactures is not of much greater value.

Post Office.

Table XXV.

Year.	Receipts.	Payments.	Year.	Receipts.	Payments.
	Rs.	Rs.		Rs.	Rs.
1901—02 ...	21,78,000	10,05,700	1906...07 ...	24,80,300	10,22,200
1902—03 ...	23,34,400	9,77,100	1907...08 ...	27,28,200	13,20,000
1903—04 ...	24,89,400	8,81,800	1908...09 ...	28,26,400	13,29,400
1904—05 ...	25,23,900	9,85,100	1909...10 ...	28,40,200	14,43,500
1905—06 ...	24,29,300	10,45,400	1910...11 ...	27,75,000	14,48,300

The postal service in Mysore is under the Imperial Government. From the above table of receipts and expenditure it will be observed that the former exceeded the latter by Rs. 14,04,660, or say 14 lakhs a year chiefly due to the fact that the outward remittances by M. O. were in excess of those received.

The Civil and Military Station, Bangalore.

The business of this important station is included in the trade returns relating to the Mysore State and some reference to it is necessary on account of the large expenditure incurred therein by the Government of India. This amounts to about Rs. 85 lakhs per annum and is partly met by the Mysore subsidy of Rs. 35 lakhs a year and partly by the Revenue of the assigned tracts which averages nearly Rs. 7½ lakhs a year. The balance is furnished by the Government of India. Of this Rs. 14 lakhs a year is derived from the surplus Postal receipts and the remainder is remitted by the accountant General of Madras. The Civil and Military Station, instead of being a drain on the resources of Mysore, contributes probably Rs. 30 lakhs a year and in making up the balance sheet of the external trade of the State this sum has to be taken credit for.

The Mysore Government Investments.

Since 1904 the Mysore Government has made large purchases of Government of India securities, which together with a loan of 12 lakhs of rupees to the Bikanir State amounted at the end of 1910-11 to Rs. 153 lakhs. Temporarily this money has left the State, but being invested in liquid securities it can easily be recalled whenever the necessity for doing so arises.

Foreign investments by Mysore People.

It has naturally not been possible to obtain any exact information on this head but from inquiries made it does not appear that Mysoreans have at all largely invested money outside the State. The prevailing rates for interest indicate a great scarcity of liquid capital and the few in possesion of money are able to obtain more remunerative fields for its employment in the State than they are likely to be able to do outside it. On the other hand a very large amount of money, belonging to Marwari firms in the North of India is steadily employed in financing the trade of Mysore and the profits on this investment all leave the State.

All other articles of Merchandise.

Table XXVI.

Year.	Export.		Import.	
	Weight.	Value.	Weight.	Value.
1901—1902	·71	2.49	3·16	11·06
1902—1903	·85	2·98	3·92	13·72
1903—1904	1·00	3·51	3·52	12·34
1904—1905	1·23	4·30	3·91	13·70
1905—1906	·96	3·35	4·04	14·16
1906—1907	1·32	4·61	3·77	13·19
1907—1908	1·73	6·02	4·75	16·60
1908—1909	2·26	7·89	6·45	22·59
1909—1910	2·18	7·60	6·27	21·93
1910—1911	1·79	6·26	5·85	19·84

Note (1). For statistical purposes the values are calculated at Rs. 3-8-0 per maund.

(2). The weight is in lakhs of maunds of 82⅔ lbs. and the value is in lakhs of rupees.

The Railway returns regarding these miscellaneous items are probably reliable as regards the weights, but the values attached to them by the Board of Revenue in Madras are purely conventional, and are calculated at the rate of Rs. 3-8-0 per maund. In regard to exports this rate may possibly be a fair average but it is certain that in regard to imports it is much too low. The latter are of a very miscellaneous character and include a great variety of manufactured foreign imports of high value in comparison to their weight. It should be noted that both are on the increase, and that the imported weights are, on an average, three times the exported weights. No mention is made in the Railway returns of the large quantity of explosives or of the cyanide of potassium imported for the Kolar Gold Fields. The values of these for the ten years under review have been taken from the Annual Reports of the State Geologist and are given in Table XXVII. In calculating the value of the imports these items have been added to the totals obtained from the Railway returns.

Table XXVII.—All other articles of Merchandise—*contd.*

Year.	Explosives.	Candles.		Mercury.		Cyanide.		Zinc.		Total	
	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
1901—02 ...	803,895	676,083	220,035	18,326	35,490	676,128	519,555	68,559	14,910	...	1,593,885
1902—03 ...	884,445	742,381	229,185	16,764	31,230	472,980	356,970	55,277	12,435	...	1,514,265
1903—04 ...	898,575	818,843	208,800	16,410	31,500	518,668	393,615	48,632	10,875	...	1,543,365
1904—05 ...	898,815	848,898	230,985	12,227	22,725	476,551	342,675	49,703	10,950	...	1,506,150
1905—06 ...	974,100	868,307	220,050	11,795	21,645	478,142	261,675	49,289	10,950	...	1,488,420
1906—07 ...	996,345	863,644	215,895	7,740	14,655	469,152	266,475	55,901	12,770	...	1,506,140
1907—08 ...	1,028,565	831,659	209,055	8,265	14,340	510,569	302,055	66,803	15,270	...	1,569,285
1908—09 ...	929,220	839,889	210,300	7,373	13,275	530,406	312,405	63,264	13,785	...	1,478,985
1909—10 ...	793,365	841,764	210,585	7,687	14,085	537,884	320,850	62,313	12,855	...	1,351,740
1910—11 ...	847,245	841,886	210,735	9,435	18,075	522,410	312,705	62,568	13,395	...	1,402,155

Treasure.

Table XXVIII.

Year.	Gold Coin and Bullion.				Silver Coin (Government Rupees.)				Silver Bullion			
	Export.		Import.		Export.		Import.		Export.		Import.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1901—02 ...	6·07	369·48	·02	1·40	9·45	25·39	13·76	36·99	·13	·06	3·33	6·04
1902—03 ...	5·38	328·95	·01	·70	12·84	34·51	15·60	41·93	·08	·14	5·18	8·58
1903—04 ...	5·45	333·58	·06	3·50	13·76	36·98	18·79	50·50	·37	·68	3·31	6·89
1904—05 ...	5·80	353·98	·12	7·14	4·89	13·14	17·38	46·69	...	...	3·26	6·26
1905—06 ...	6·37	395·86	·04	2·11	1·74	4·67	14·99	40·28	·12	·24	3·25	6·31
1906—07 ...	4·30	267·86	·05	2·81	2·77	7·44	20·48	55·05	...	...	2·27	4·94
1907—08 ...	3·92	241·03	·04	2·12	1·10	2·97	18·64	50·08	·06	·12	4·30	8·82
1908—09 ...	3·52	220·12	·01	·71	2·18	5·87	9·59	*25·77	·19	·35	2·54	4·60
1909—10 ...	5·35	328·99	·01	·71	6·44	17·31	6·52	*17·51	1·09	1·86	1·42	2·39
1910—11 ...	3·24	204·10	...	...	13·68	36·69	5·17	*13·90	1·03	1·93	1·86	3·41

Note :—The weight is in ounces and the value is in lakhs of rupees.

* Revised figures for these years are :—59·29 ; 52·09 ; and 48·18 respectively.

It is unnecessary to repeat the remarks that have already been made regarding the want of coincidence between the value of the exports of gold and the output of the mines. In regard to silver, the imports of bullion are decreasing, and exports increasing. The figures regarding the imports of Government rupees are certainly in error from 1908 onwards. Their large value is mainly accounted for by the fact that monthly remittances are made from Madras to pay the employees on the Kolar Gold Fields. The amount disbursed in this way is about 34 lakhs a year and should probably be added to the returns for the last three years. The import

figures in Table XXVIII have therfore been altered by the addition of the sums actually remitted to the mines in 1908—10. The export of Government rupees varies largely from year to year, and is undoubtedly affected by the character of the season of the preceding year. In good years, the raiyats probably hoard, and in bad years, their savings are drawn upon to meet current demands. From information kindly furnished by the Resident's Treasury in Bangalore it appears that during ten years under review the exports of treasure exceeded the the imports into the Civil and Military Station by Rs. 30,12,000. In the same period the railway returns show a surplus of imports over exports of Rs. 2,96,25,000. The net accumulation in the State is therefore Rs. 2,66,13,000 or an average of 26 lakhs of rupees a year. The general poverty of the people is indicated by the fact that the imports of gold coin are very small; but, possibly there is an unrecorded movement of gold and silver made up of a large number of small items carried by passengers travelling on the railways. Before we can produce an accurate statement of the external trade of the State it will be necessary to obtain more reliable information than is now available regarding the exports and imports of the precious metals. For the present, the idea that there is any extensive accumulation of specie must be received with scepticism for there are no visible signs of it.

Trade by road.

No statistical information of any kind is available regarding the trans-frontier trade by road. With certain exceptions noted below it is believed to be of no great importance and to be entirely of local origin. There is no tendency for the railways either of Mysore or Madras to attract traffic by road across the frontiers and no great error is likely to be caused, by neglecting the road traffic except to the West and South, in preparing a balance sheet of the external trade of the State. Down the Western Ghats there is a large export of coffee and in the absence of more accurate data it has been assumed that the whole of the coffee exported by sea from Mangalore comes from Mysore. There is of course much other traffic on the Ghat Roads, but in the absence of detailed information regarding it, the assumption is made that the exports and imports balance one another. To the South the trade is similarly dealt with except in respect to the silk from Kollegal which is exported *via*, Maddur and from the railway bookings it is known to be worth from 10 to 12 lakhs a year; as this silk however, only passes through the State it is doubtful if any account should be taken of it. No details are available of the trade between Kollegal and the Mysore State and it is not known in what form the value of the silk is remitted. Pending further inquiries, the Kollegal Mysore trade is assumed not to affect the balance of exports and imports.

Balance of trade.

Table XXIX.

Year.	Exports.									Imports.					Excess of Exports.	Average excess.
	Provincial Total Goods.															
	Rail Traffic.	Coffee.	Sandalwood.	Total.	Output of mines.	Silver coin.	Silver Bullion.	Grand Total.	Provincial goods (Rail Traffic).	Gold Coin and Bullion.	Silver Coin.	Explosives, etc., as per Table XXVI.	Silver Bullion.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1901—02 ...	268·80	50·00*	8·95	327·75	288·46	25·39	0·06	641·66	386·40	1·40	36·99	15·94	6·04	446·77	194·89	...
1902—03 ...	278·85	50·60	10·07	339·52	294·68	34·51	0·14	668·85	339·63	0·70	41·93	15·14	8·58	405·98	262·87	...
1903—04 ...	272·54	41·22	10·26	324·02	342·61	36·98	0·68	704·29	351·19	3·50	50·50	15·43	6·89	427·51	276·78	...
1904—05 ...	286·44	56·10	12·12	354·66	348·48	13·14	...	716·28	397·39	7·14	46·69	15·06	6·26	472·54	243·74	...
1905—06 ...	389·90	73·35	12·52	475·77	356·02	4·67	0·24	836·70	407·43	2·11	40·28	14·88	6·31	471·01	365·69	252·37
1906—07 ...	360·63	43·81	12·85	417·29	325·15	7·44	...	749·88	422·77	2·81	55·08	15·06	4·94	500·66	249·22	...
1907—08 ...	384·10	39·33	13·70	434·13	306·17	2·97	0·12	743·39	418·67	2·12	50·08	15·69	8·82	495·38	248·01	...
1908—09 ...	384·43	58·21	10·53	453·17	308·38	5·87	0·35	767·77	477·73	0·71	59·29	14·79	4·60	557·12	210·65	...
1909—10 ...	363·05	51·27	8·36	422·68	313·83	17·31	1·86	755·68	461·08	0·71	52·09	13·52	2·39	529·79	225·89	...
1910—11 ...	324·68	58·40	11·46	394·54	315·92	36·69	1·93	749·08	437·54	...	48·18	14·02	3·41	503·15	245·93	...

Note:—The figures in this statement are in lakhs of rupees. * Estimated value.

This table is a summary of the information gathered in the course of this review. Before discussing the results of this investigation it will be convenient to record the following notes regarding the various items. On the Export side the figures for rail-borne traffic have been corrected in regard to the rates assigned to "tanning bark" 1901-02 and "unwrought leather" for all years except 1910-11 and for the exports and imports of cotton as detailed in the remarks under that head. The figures for coffee are taken from the annual reports on the Sea Borne Traffic of the Madras Presidency. Hassan and Kadur are the only districts in which coffee is largely grown and the natural outlet is *via* Mangalore on the West caost to which port access is possible by three ghat roads. It is improbable that any large quantity of coffee grown in other planting districts, such as Coorg, is sent to Mangalore so that the Trade returns of Mangalore for this article may be fairly taken to be the exports from Mysore. Some coffee, doubtless, leaves the Province by rail but it is not separately recorded.

As sandalwood does not appear in the railway returns and as nearly the whole of it is exported the amounts realized at the annual sales have been entered. Instead of the railway returns for gold bullion which are obviously inaccurate, the output of the mines has been taken and the only possible error in this item is due to the returns being for the calendar instead of the official year, but over a period of 10 years even this want of coincidence is unimportant. The revised railway returns for silver coin and silver bullion are entered, but it is uncertain whether they are even approximately accurate or not. A careful scrutiny of every item on this side of the balance sheet leads to the conclusion that it is improbable that it contains any very serious errors or omissions except in regard to the silk trade, the exports of which are possibly double those entered in the railway returns.

On the import side of the balance sheet there is no doubt that the returns are on the whole less accurate and this is not surprising as the classification of the goods is a much more difficult matter. Instead of the railway figures, the returns from the mines have been used in the case of the coal traffic and this neglects all the coal used on the railways and for private purposes. The value of the imports of wood has been reduced as noted under that head. The imports of silver coin are at any rate from 1908 onwards incorrectly returned, but in respect to silver bullion no comment is possible and the figures must be accepted as correct.

Notwithstanding the errors which exist in Table XXIX, as a summary of the results of this review, it is worthy of study, as it is sufficiently accurate, to reveal the general tendencies of the foreign trade of the State. During the first 5 years the average excess value of exports over imports was 269 lakhs a year, whilst during the second five years the excess was 236 lakhs a year. It is important that the causes of this great excess should be analyzed for, as will be subsequently apparent, the exports of gold only partly account for it and that too in a steadily diminishing proportion. The increasing depth, at which work in the mines is carried on, necessitates a larger expenditure in India per ton of quartz milled though science and engineering skill are continuously endeavouring to effect improvements which counteract the difficulties due to the exhaustion of the upper levels of the mines. The savings to the State due to the Sivasamudram Hydro-Electric installation and the extra expenditure at Kolar are roughly sufficient to account for the decrease observable in the annual excess of exports. The increased working expenses of the mines as evidenced by the diminution of the dividends means that a larger proportion of the gross yield is spent on material and labour on the gold

fields and that increase should be reflected in the annual balance sheet by a closer approximation in the values of the exports and imports.

The average value of the exports during the period 1901—06 was 713 lakhs and during the period 1906—11, 753 lakhs equivalent to an increase of 40 lakhs per annum in 5 years. Comparing the first three years of the decennial period with the last three years the increase is as much as 86 lakhs or 12·8 per cent on the total annual average export of the first three years. These figures may not be absolutely accurate but they furnish evidence that the export of commodities is either stationary or actually decreasing as the increment of value is fully accounted for by the rise in prices during the ten years.

The general result of the survey then is that Mysore is at best in a stationary condition—the stronger term "stagnant" might almost be employed save that there is evidence of internal changes. Those, however, tending to an improved condition of things being neutralized by decadence and failure in other directions. A longer period than ten years is probably necessary to exhibit the full tendency of the forces at work. Ten years is however sufficient to base certain broad generalizations on and this we may proceed to do by constructing an average yearly balance sheet.

	Lakhs.		Lakhs.
Exports	733	Imports	482
Probable underestimation of silk exports	40	Value of gold not returned to Mysore in any form ...	173
Remittances of Government of India to the Civil and Military Station	30	Profits on coffee planting sent out of the State ...	10
		Railway freight on Imports ...	20
		Savings at Kolar sent out of the State... ...	20
		State investments ...	15
		Balance	83
	Rs. 803		Rs. 803

It is this balance of Rs. 83 lakhs to which attention should be drawn. Part of it may be accounted for by unrecorded imports or under-estimation of the value of imports but it is hardly likely that these amount to any great sum. It is just possible the net accumulation of treasure in the State is greater than the 26 lakhs it has already been estimated at. It is equally possible that the savings of non-Mysoreans sent out of the State are larger than have been allowed for. Errors under these heads will not account for any large part of the balance and that balance, whatever it may be, represents the profit earned by the Marwari capitalists who finance the trade and commerce of Mysore. It matters little to the well being of the people as a whole how the details of this annual loss are made up. In one way or another approximately 100 lakhs a year is lost through the inability of the people to manage their own affairs.

This is already recognised by those who have studied carefully the condition of Mysore and the conclusions of this review will probably strengthen their convictions. The improvement of finance is obviously the most crying need and the steady growth of the co-operative credit movement is a step in the right direction but more than this is necessary and the establishment of a strong local bank seems urgently called for. The Government has large accumulations invested at less than 4 per cent whilst its subjects have to pay from 12 per cent to 36 per cent for the loans necessary to carry on agriculture and trade. Through the agency of a

local bank the Government could place some of its resources at the disposal of its subjects and not only would the actual assistance directly rendered be of value but it would encourage private effort in the same direction.

It is beyond the scope of this review to discuss remedial measures for the not very satisfactory state of affairs which it discloses and it only remains to draw attention to a few facts which all tend to confirm the general conclusion. We have already seen that the area under cultivation is stationary and since agriculture is the main source of the wealth of the people, without an extension of the cultivated area no increase in the amount of produce is possible unless, indeed, there be a marked improvement in the methods of cultivation. The work of the Agricultural Department has not yet begun to tell except in isolated instances and broadly it is safe to say that the yield of the soil has not been improved. The state of agriculture would therefore lead us to expect the conclusion arrived at. It is true that the ordinary revenue of the State has increased from 160 lakhs in 1901-02 to 184 lakhs in 1910-11 or by 17 per cent, but if agricultural products have increased in price, during the same period by 20 per cent, the purchasing power of the revenue is stationary if not actually decreasing. Of all the sources of revenue that derived from "stamps" is perhaps the best gauge of the activity of the people and if this be taken as evidence of progress it clearly indicates stagnation. In 1900-01 it amounted to 7·69 lakhs and in 1910-11 to 7·97 lakhs, an increase of only 0·36 per cent which is less than the actual increase of the population during the period. It may be further noted that the corresponding revenue in Madras is per head of population about double that of Mysore.

The development of railway traffic during the period at first sight appears to be of a satisfactory character, the gross revenue (*vide* Table XXX) having increased from 18·73 lakhs in 1900-01 to 28·30 lakhs in 1910-11, and in some of the intermediate years it reached an even higher figure. The exports of manganese ore and the imports of rice largely account for the increase in the goods receipts whilst the returns from passenger traffic account for the balance. The mileage of open line has remained constant throughout the period and though in proportion to the population served it is much below the average of the rest of India; even in 1910-11 the gross receipts were only Rs. 132 per mile per week as compared with Rs. 309 per mile per week for the South Indian Railway in the Madras Presidency in the same year.

Railway Receipts.

Table XXX.

Year.	Gross (in lakhs)	Net (in lakhs.)	Year.	Gross (in lakhs)	Net (in lakhs).
1901—1902	19·99	6·61	1906—1907	26·92	8·79
1902—1903	...	7·87	1907—1908	30·77	9·14
1903—1904	...	7·01	1908—1909	31·14	10·72
1904—1905	...	6·70	1909—1910	30·10	12·36
1905—1906	26·31	9·00	1910—1911	28·30	10·66

If we take the deposits in the Government Saving's Bank as a criterion of the wealth of the people they tell very much the same tale. Various changes in the rules render the comparison of figures earlier than 1906-07 valueless, but since then an examination of Table XXXI will show that there has been no progress. Under

almost every head into which the deposits are classified there has been a falling off; slight it is true but really serious when the depreciation in the value of money during the same period is taken into consideration.

Government Savings Bank.

Table XXXI.

Year	Total Deposit		Deposits held by Government Officers in their Official capacity.		Security Deposits.		Private Deposits		Average amount of each Deposit.	Average Savings per head of population as per Census of 1901.	Deposits in the name of Minors.		Deposits in their own names.	
	No. of Accounts.	Amount.	No. of Accounts.	Amount.	No. of Accounts.	Amount.	Net Accounts.	Amount.			No. of Accounts.	Amount.	No. of Accounts.	Amount.
		Rs.		Rs.		Rs.		Rs.	Rs. a. p.			Rs.		Rs
1906—07 ...	15,342	69,88,765	532	2,53,812	799	1,69,321	14,011	65,65,632	468	1 3 4	1,179	8,15,187	12,832	57,50,445
1907—08 ...	15,397	73,44,765	618	4,31,609	619	1,55,757	14,160	67,57,399	477	1 3 11	1,557	10,98,827	12,603	56,58,572
1908—09 ...	14,978	71,78,467	539	3,35,603	725	1,69,764	13,714	66,73,100	486	1 3 7	1,571	11,12,257	12,143	55,60,843
1909—10 ...	15,049	67,94,464	501	2,49,252	932	2,17,516	13,616	63,27,696	464	1 2 6	1,818	11,47,796	11,798	51,79,900
1910—11 ...	15,012	67,28,193	492	2,63,717	971	2,27,466	13,549	62,37,010	460	1 1 6	1,739	9,43,677	11,810	52,93,333

One attractive feature of Mysore but at the same time an infallible indication of the poverty of the people is the very small amount of litigation indulged in. It is needless to adduce statistical evidence on this point as it is one of the most striking features in the administration of the State.

By the rest of India Mysore is regarded as a model native state, and so far as an outsider can judge during a comparatively short period of residence, the reputation is justly earned. To what, then, is due the stagnation apparent on all sides and only partially counteracted by the influence of an active and energetic Government ? It is possible that the character of the people is to a large extent responsible, but their difficulties have been greatly increased by the prevalence of plague, which has, through the whole ten years under review, lurked in the back ground as a serious menace to any attempts at enterprise. Not a small amount of floating capital has been invested in the modern extensions of Bangalore and Mysore which have been forced on the community as the only way of keeping within bounds the ravages of this dire calamity. Comparison with other parts of India which have been similarly affected is hardly possible, as no similar investigation of the external trade relations of an equally compact area has so far been attempted. It would be unwise to assert that plague is solely responsible for the lack of progress revealed by this enquiry. That the results arrived at are substantially correct has been recognised for sometime past, and the establishment of the Economic Conference by H. H. the Maharaja was a practical recognition by the Head of the State that measures must be taken to stimulate the people to the necessity of greater activity if they would not gradually recede from the pre-eminent position they have hitherto occupied in India.

BANGALORE,
11th February 1913.

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